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THE SURGICAL TREATMENT OF ENLARGED PROSTATE.

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Enlargement of the prostate gland to a greater or less degree may take place either with or without disturbance of the function of micturition. In the former instance it will receive no notice from the patient and need not concern the medical attendant. It is only when the voiding of urine is interfered with that enlargement of this organ acquires significance. The surgical treatment therefore resolves itself into the relief of the urinary obstruction, either temporarily by the use of a catheter or permanently by removal of the overgrowth. I am aware that catheterization is not usually thought of as a surgical procedure and that owing to the ease and painlessness with which it can be performed, it is a task often allotted to the patient. I believe this easy-going way of regarding the use of the catheter is a gross wrong. A few years ago there was an excuse for it. At that time extreme cases requiring daily catheter relief had no other alternative and to teach them the careful and cleanly use of the catheter was justifiable. To-day it should be regarded in a different light.

Modern surgery has something so much better to offer these sufferers, that the routine use of the catheter is no longer worthy of consideration. There are cases, however, which do not require relief daily and perhaps not oftener than once or twice in a year. They may have enlargement which will only cause occasional obstruction when some exciting cause is super-added; such as an indiscretion in diet, or undue exposure to cold and wet. It is in such cases that the catheter has its place; and then only in the hands of the surgeon and with all care as to cleanliness and asepsis that should be accorded a minor surgical operation. When the calls for this kind of relief become so frequent that the surgeon can not give it his personal at-

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tention, the time has come for permanent relief through operative removal of the hypertrophied masses, or of the entire organ. The operative treatment is now practically narrowed down to prostatectomy. There may be occasional cases in which some of the other procedures are justifiable, or there may be good authorities who advocate other measures as a routine practice; but I think it is not far wrong to say that the majority of operators regard prostatectomy as the operation of choice. The manner of doing this operation, judging from the descriptions of the technique of various operators, is in a somewhat unsettled state. Not so much because one advocates the suprapubic, or another the perineal, operation, although this is made to figure most prominently in discussions; but because of what seems might be of more vital importance, namely:—What these different operators remove. In their descriptions the anatomical relations of the sheath and capsule of the organ are often lost sight of and these terms are used interchangeably.

To avoid confusion it should be borne in mind that the outer covering or sheath of the gland is a thin fibrous membrane derived from the recto-vesical fascia and that the prostatic plexus of veins lies immediately under it. Next to this is the outer muscular covering, the capsule of the gland, which has no well defined line of demarcation between it and the trabeculæ of muscular tissue in the interior of the organ in which the glandular elements are contained. I am speaking now of the normal organ. In hypertrophy involving the glandular masses in the lateral lobes a line of cleavage forms between them and the capsule, which seems to give to the latter a more distinct anatomical entity.

There are descriptions of prostatectomy in which only the enlarged masses are removed, and it is worthy of note that the amount of obstruction is by no means proportionate to the size of these masses. In one of my cases, in which there had been complete obstruction, the hypertrophied glandular structures from both lateral lobes only weighed one hundred and eighty grains, and though it is now twenty months since the operation, he has never been obliged to use a catheter. I have never heard or read a report of the removal of so small an amount of prostatic tissue. There are other descriptions in which in addition to one or both lateral lobes the middle lobe is removed; still others in which the entire organ, including its capsule and all three lobes, are removed; sometimes with all or part of the prostatic urethra and sometimes without any of it. You will not have searched far in the literature of this subject until it will become clear to you that in some of these descriptions the operator was by no means certain just what he had removed. Some who are careful of their statements do not pretend to know until they receive the pathologist's report. As a rule the suprapubic operation, notably that of Mr. Freyer of London, is the more complete. If he is cor-

rectly quoted he specifically advocates separating the capsule from the sheath and removing the entire organ, leaving the anterior portion of the prostatic urethra. The perineal operation as usually described does not disturb the capsule and hence does not expose the prostatic plexus of veins: in short it is, as a rule, more of a partial prostatectomy. The most gratifying thing concerning the operation is the fact that no matter what method has been followed by any reliable operator through a series of cases large enough from which to draw conclusions, the results are so far superior to routine catheter life that the latter is deserving only of condemnation.

Without going too deeply into statistics let us for a few moments weigh this statement. On the side of prostatecomy the operation may be charged with a mortality of something less than five per cent. in the hands of some operators to something more than twelve per cent. in others. While making this charge it should not be forgotten that many, probably a majority of these operations were done on men for whom catheter palliation had already been practised until it was no longer possible and they were suffering from cystitis, and, it may be, uremia.

Again, it can not be claimed that all who recover from prostatectomy, recover with perfect urinary function. Urinary incontinence will claim the larger share of imperfect results; and while it may be difficult to convince one who is so unfortunate that his last state is not worse than his first, if you will frankly tell him in the beginning that he is liable to incontinence the chances are that he will assume the risk. For catheter palliation statistics are somewhat meager. A. H. Ferguson of Chicago quotes Harrison, Lydston and others as having shown that the expectation of life under this regime is only about four or five years, but you who have been in general practice for a number of years have a knowledge on this score that makes statistics unnecessary. If your experience coincides with mine, you have felt the more years some of these patients live the greater their misfortune. True I have known some who got along with a fair degree of comfort for many years, but in by far the greater number, attacks of prostato-cystitis, increasing in severity and frequency, have made life, at least to an impartial observer, less desirable than the other alternative. Prostatectomy has saved many of these aged patients to lives of comparative comfort after they had actually become uremic, with not only good urinary function, but with changes in the urine showing improvement in the condition of damaged kidneys. Why should it so often be a last resort? Why should it not be employed as soon as the obstruction so interferes with the proper function of the bladder that the patient is obliged to resort to frequent catheter drainage, or as soon as residual urine is found to be a nearly constant symptom? My own experience with the surgical side of these cases is small. It is rather as a

general practitioner than as a specialist that I present this brief paper to you, and if I have succeeded in arousing any interest, where such interest needed arousing, in the advantage of prostatectomy over the slip-shod habit of providing the prostatic with a catheter to be used by himself at his own pleasure the main purpose of this paper will have been attained. I feel sure that if those of you who have not already done so will carefully investigate the subject you will agree that there is need for a change of sentiment regarding the treatment of prostatic hypertrophy.

A FEW POINTS RELATIVE TO PROSTATECTOMY*

BY C. F. ROBERTS, M. D., KANSAS CITY.

In the beginning I want to beg pardon for imposing upon your good nature a subject which has been so frequently brought before you during the past few years. I have nothing new of importance to offer but feel there are some points relative to the operation which, if studied more carefully, would help us to reduce our mortality. I am very glad to see the pendulum is now swinging back to its proper place that of careful and conservative surgery along this line. Fortunately for the poor prostatic sufferer, the day has come when the operator is considering more conscientiously his mortality table than merely adding to his list or number of operations. As in all operations of whatever nature or kind, it has had its fad period and all those who wielded the knife thought they must fall in line and keep pace with the procession; so it has been with the operation for the removal of the prostate gland. Very few operators desire to boast of their wonderful results and low death rate during the beginning of prostatic surgery, but thanks to the careful and patient students who have by their faithful and untiring work, overcome some of the causes of our high death rate, we now undertake the operation with more courage and brighter prospects for our patient than we did a few years ago.

History.—It is very interesting to note, when we come to consider the history of this operation, that most of the work has been done within the last ten years, and the past twenty years will cover the greater part of the work along this line.

More interesting does it seem when we think of the many conditions produced by the abnormal prostate that the consideration of its surgery should be so long overlooked during the past years of progressive surgery.

The symptoms and conditions produced by the abnormal pros-

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tate have been recognized ever since history began, but little did they know of the true pathological conditions existing. In this brief paper we cannot think of dwelling upon the history and must be content by expressing our great appreciation for the earnest work of each man who has added one or more links to the chain of prostatic surgery or has strengthened a single weak link in the chain.

Glancing for a moment at the pages of the early history we find that to Herophilus must be given the credit of first using the term prostate; but we find he misapplied the term and really used it in referring to the seminal vesicles. To Sir Everard Holmes we will give the credit of recording some of the symptoms observed in these conditions. Riolanus during the sixteenth century expressed the belief that the bladder could be obstructed by the swelling of the prostate and suggested the incision of the neck of the bladder for its relief.

Then came the practice of tunneling by the catheter of the prostate gland recommended by John Hunter, Home and Brodie. The retention of the catheter in the urethra for a period was strongly advised by some.

We find that Guthrie during the early part of eighteenth century was among the first to bring to light true surgical interference with the vesical neck and prostate. Then later we find many advocating the Bottini operation which method is still used by some operators at the present day.

As we turn the pages we find year by year more extensive and radical work being done until at the present day the removal of a portion or the entire gland is a common operation.

Etiology.—The etiology and pathology of the condition under consideration are not as well understood or explained as we would like to have them. All seem to agree that some inflammatory process is the main etiological factor, let the cause of the inflammation be what it may, just so it is of a chronic nature or continues long enough to cause some true pathological change.

Pathology.—We will consider the pathology but briefly. The process of hypertrophy may take place in any portion of the gland. In most of the cases that have fallen under my care I have found the change taking place in one or both the lateral lobes, therefore I do not believe we are justified in using the term middle or central lobe which we hear referred to so often by the present writers and in text books.

By careful dissecting we find that the portion referred to as the middle lobe, in many cases is merely a projection of the upper part of one of the lateral lobes which has grown towards the center, although we have in many cases in the posterior wall of the vesical orifice the little fibrous tumor deposits which act as a valve and com-

pletely close the urethral opening. Some of these growths are entirely independent of the lobes of the gland.

The consistency, size, and shape of the gland when enlarged depend upon which of the normal tissues have been affected by the process of hypertrophy.

These conditions may be classified in two distinct forms, fibrous and adenomatous. In the first form the connective tissue of the gland is affected and we find the shape and consistency of a part or the whole prostate may be changed to a hard irregular mass. The gland tubules are destroyed by the deposit and contraction of this fibroid deposit.

In the second form the epithelial or secreting portion of the gland, is involved by the process and we have in this class as a rule a tumor which is round or oval, and of a semi-solid or elastic consistency. By the inflammatory process the tubules are obstructed and in this way the little cyst-like nodules are formed which may vary greatly in size.

In a great many cases if not in the majority we find both of the above conditions existing. Therefore we have the so-called mixed type, with areas of fibrous formation intermingled with the adeno-cystic tumors.

The malignant and other forms of over-growth will not be considered in this paper, except that I want to call the attention of the members present to a condition I have noticed in quite a number of cases of the fibrous, or cancerous growths, and that is a marked decrease in the transverse diameter of the bony outlet of the pelvis, or in other words a narrowness between the rami of the pubic bones. I cannot give any reason why the two conditions should be associated, nor can I see how there can be any connection between the two, therefore I wish to ask if this condition has been noticed by any of these members present.

I also want to state that in my belief cancerous prostates are more frequent than we have thought in the past, for during the past two years I have been investigating along this line and have had some of the glands which I had removed several years ago examined and they proved to be of a malignant nature.

Symptoms and Diagnosis.—I only wish there were some certain signs or symptons which would direct the attention of the physician to the bladder, and prostate much earlier in the course of the diseases of these organs.

Now if there is one single thought that I want these few remarks to impress upon your minds more than another, it is to take these conditions under consideration as early as possible and do not postpone the proper treatment, be it palliative or surgical.

I know in my limited experience I have had many a case come under my care in which, if it had been taken earlier, the results would

have been much better and my death rate much lower.

Now do not think for one moment that I want to censure the general practitioner in the least, but I do want to impress upon your minds the great necessity of making thorough examination much earlier in these casse than is the general rule. Do not put off the poor old man who comes to you complaining of some difficulty with the urinary function, with merely a prescription directing him to take this and report again in a few days. In a great many cases the very change that causes much damage and the future life of your patient to be one of torture may take place during these few days.

These changes and conditions invite infection with all its results. We must make our diagnosis by first, the symptoms obtained from the patient; 2nd, rectal palpation; 3rd, thorough examination of the urethra; 4th, vesical exploration; 5th, repeated measurements of the residual urine, and 6th, careful cystoscopic inspection.

About the first symptom the patient complains of is some difficulty in starting the flow of urine, next there is a deficiency in the force of the stream to a more or less degree.

Then finally he complains of the frequent calls to urinate especially at night, or comes to you saying his urine is passing all the time.

By rectal palpation we can estimate the size of the gland and its consistency and determine if possible whether the enlargement is fibrous or glandular in character. In many cases a stone or tumor in the bladder may be found while proceeding in this manner.

Where the gland is not too high or too large, we can feel the upper surface and determine the portion which is enlarged; occasionally stony deposits are found in the gland. By careful examination by way of the urethra we can determine if stricture exists, the condition of the mucus membrane and the course of the canal through the gland.

By careful exploration of the bladder with the sound we can in many cases determine if a tumor or stone be present. Repeated measurements of the residual urine should be made in all cases under your care so as to determine the progress of the disease.

The condition of the urine always being noted, by the aid of the cystoscope we can determine the condition of the mucous membrane of the bladder, and make a complete inspection of the same.

The enlarged middle portion in many cases can be seen. In some cases the enlarged lateral lobe may be seen projecting upward into the vesical orifice, and by the aid of the retrospective instrument we may be able to find calculi which are in back of the prostate and were not discovered by the sound.

Operation.—In this operation as in all operations where there are two avenues of approach, or two methods of procedure, we find

many claiming that the one or the other is by far the best or the only way to proceed.

If we will recall a few years ago when some of our leading gynecologists began to remove the uterus by way of the vagina, we will notice the great opposition to the operation set forth by many equally as good operators as those who were performing vaginal hysterectomies.

But nevertheless the operation has gained a foot-hold and has come to stay. So we find men of equal ability and experience claiming the suprapubic or the perineal operation as the only rational route. Now can we say that the gynecologist must do all his work by one method? Not by any means, but let us be more generous and give him the right and privilege of selecting the route his judgment tells him is the best to give his patient the most benefit possible in every respect.

The same is true in this operation; every case should be studied carefully and every condition noted. Then the operator, in justice to his patient and himself, must select the route which he thinks the most suitable for the case under consideration.

It is interesting to read the reports of different men and institutions in regard to the route preferred; among the collection I have one hospital report of one hundred and thirty-four operations, all done suprapubically. This report also contained a statement that in their opinion no one should think of doing the perineal operation. For my own part I prefer the perineal operation in all cases, unless there are conditions calling for the suprapubic and I will give some of the main reasons for this.

In the first place the mortality rate should be considered, and as one person has such a limited number of operations we must not think of drawing any conclusions from the record of one, but by the results of a great number of cases we can prove which is the best.

Dr. Tuffier, although he advocates the suprapubic operation, reports 2,227 cases operated upon by such men as Young, Albarran, Proust, Watson, Horwitz and Hartman with a mortality for the suprapubic route of 6¼ per cent., while the perineal was only 4 per cent., 2½ per cent. in favor of the perineal route.

He states as far as renal insufficiency is concerned the mortality is about the same in the two operations—35 per cent. in the perineal, 33 per cent. in the suprapubic. Shock he says is the cause of death in 17 per cent by the perineal while 22 per cent. is the rate by the suprapubic route.

From a report of Drs. Tenney and Chase covering 3,000 cases, we find their mortality by the perineal route was 7 per cent., while by the suprapubic it was 13 per cent., or nearly twice as great.

Dr. Deaver admits that most of the first operations he per-

formed were by the perineal route but after seeing Dr. Fryer operate by the suprapubic route he changed his method and now advises the latter operation, but makes the statement in his book (page 208), that the mortality of Fryer's operation is higher than that shown by the statistics of the modern perineal operators.

In making an examination for this operation we should carefully inspect the abdominal wall and the perineal region. The suprapubic operation should never be done where there is a fat abdominal wall unless there is some condition demanding it, on account of the great danger of sloughing or infection of the fatty tissue. One of the points in favor of the perineal section is the presence of stricture of the deep urethra which has been present in a few of the cases coming under my care. In some cases old urinary fistulæ are also found, either of which should be taken care of at time of operation.

As far as viewing the field is concerned I find very little difference and must say it is of little aid to me in either operation as I depend entirely upon the sense of touch. Dr. Watson makes the statement, while speaking in favor of the suprapubic, that the perineal distance is too great and that only one-third of the operations can be done by that route. Dr. McGill finds the same objection to the perineal work but I must agree with Dr. Moore, who states that the operator's fingers grow longer as he grows in experience. Although being blessed with very long fingers, I must say I have found as much trouble if not more in the suprapubic work, especially where there is a very fat abdominal wall. When we come to the consideration of the bladder walls it is a different question. In the suprapubic we have to cut through both walls of the bladder while by the other route the true vesical cavity need not be disturbed and the vesical neck, which is a very important point, is left in much better condition as far as the future welfare of the patient is concerned.

I do not think we need consider the anterior incision in the bladder wall as it does not interfere with the urinary function to any extent, but I do find in some cases, the contractions and deformities produced by cutting through the walls on each side of the urethral orifice, produce some very unsatisfactory results.

I have under my care at the present time a case in which I did a suprapubic operation three years ago, which has incontinence which I believe from the appearance obtained by the aid of the cystoscope, to be due to the results of cicatricial tissue. He had perfect control of the urine for nearly eighteen months following the operation. There are no new growths whatever in his case. I also have a case in the same condition who was operated upon in Chicago nearly five years ago who has had more or less trouble about retaining the urine for over two years. I know it has been my experience in quite a

number of cases to tear into or destroy the urethral orifice and I think many have met with the same fate.

The Perineal Operation.—There are a number of incisions recommended by different operators for the perineal operation. The median, the T, the inverted Y, and the semilunar.

The transverse or semilunar is much better for the operator as it gives him much more room and the best view of the field, but it is not the best for the patient. In fact I think it to be the most unsatisfactory incision we can make as far as the repair of the parts is concerned. I have given the subject quite a little study and from my observation I have found that the wound is from ten days to two weeks longer in healing and sloughing of the perineal tissue, especially the fat and the rectal walls, occurs much more frequently by this incision. The reason for this in my opinion is that there is more damage done to the circulation than by the median incision.

Drainage.—The subject of drainage I think an important one and one of the strongest in favor of the perineal operation. Now should we be so unfortunate as to have a fistula following the operation the patient is much better off in every respect if it be perineal instead of suprapubic.

Some operators claim the perineal tissue is more readily infected, but in my experience I have had as much if not more trouble with the suprapubic operation, and then we are farther from the peritoneal cavity. I have had one death due to peritonitis due I think to direct infection.

Now let us consider the conditions present; we have on every hand cut and torn tissue, most of which is poorly supplied with blood, which is constantly bathed with an easily or in many cases an already infected urine. Many little pockets and cavities exist ready to receive and hold all material passing their way.

Therefore the main object is to see that this material of whatever nature has a free and ready way of escape.

Now I have tried to be just and fair in considering the two operations, but for my part I cannot see how we can expect to get as good drainage by the suprapubic route where every thing has to be syphoned up hill and the end of the rubber tube at any position in the bladder, for well do we know it cannot be retained in one place. It is more important I think to have the capsule cavity properly drained than the bladder proper, for absorption and infection will take place much more rapidly from it.

Who can say we can drain the above cavity better by the suprapubic route. I know some will say drain through the urethra, but how long can we do so until we have an inflamed urethra from meatus to posterior end. Now the drainage that has given me the best results by the perineal route is a double rubber tube; this must

not fill the incision completely but allow a part of the water to escape along the sides freely.

In most cases through one of these tubes for the first twenty-four or thirty-six hours I keep a stream of hot water flowing into the bladder, allowing it to escape part of the time through the other tube but always instructing the nurse to see that the escape tube is is closed and the water forced to escape around the tubes at intervals sufficient to keep the parts absolutely clean.

I use no gauze packing except in those cases where hemorrhage demands it. Unless the incision is unusually long I never close any part of it. The only sutures or stitches taken is one to hold the drainage tubes in place.

Still another point in favor of the perineal work is the natural drainage after all tubes are removed and the patient is able to be placed in the sitting position, which I think should be encouraged in all cases as early as possible.

DISCUSSION.

Dr. J. D. Griffith, of Kansas City: I have not had a very wide experience, but I have done a few operations, and seen quite a number. We have our preferences as to the route which we take to the bladder. In the little operative work that I have done, I have pursued the suprapubic method. I do not say that the credit for this belongs to Dr. Freyer. It is unsettled yet as to whom the honor belongs. However, this operation, we must remember, has to be done by sensation, not by sight. The eye is in the finger altogether, whether we go by the perineal route, or whether we go suprapubically. The only advantage that I have found in the suprapubic route was the fact that there is no cutting after you get into the bladder. You don't have to use any instrument to open the mucosa down to this capsule of the prostate. You sacrifice the entire neck of the bladder and the mucous membrane of the urethra, as a rule, whether you go by the suprapubic route or whether you go by the perineal route. I have yet to see a specimen of a prostate that has been taken out, where the mucous membrane of the urethra has been left intact. I have not had any trouble. I have lost my percentage, and I expect we all do. I don't think the ease of work is necessarily due to the size of the prostate that we extirpate. It is a mutilating operation, but I think the mortality here is due to extraneous causes, as a rule, and where we take the cases as they come, without selection, then it is that we have got to take our death-rate. The doctor has very clearly set forth his preference for the perineal route, but I am going to stand by the bridge that has carried me so far, the suprapubic.

Dr. O. B. Campbell, St. Joseph: The first essayist brought out some very interesting points: First, the use of the catheter, and he very rightly condemns the practice of placing the catheter in the hands of the patients for their use and relief, and quotes Edyston's opinion that catheter life only lasts about five years. It is my opinion that catheter life might last twenty-five years, not in the hands of the patient, but in the hands of the physician and surgeon who has a proper knowledge of asepsis. The question arises, what are we going to do with these old men who have enlarged prostate glands? Shall we endorse the second position taken by the first essayist, and advise early operation? Not upon doctors at any rate. There

is not a gentleman present who would want his prostate operated upon. He is not old enough to have it operated upon. Now then, let us have some compassion for our patients, and until we surgeons can do less mutilative operations; until we can obtain better results from prostatectomy, let us not urge the early operation, in the majority of cases, but let us consider well the welfare of the man who is beginning to have retention of urine. Here is where somebody blunders, and here is where the damage is created that makes it a very serious matter for us to remove the prostate, because infection is often carried to the bladder by means of the catheter. In skilled hands the patient might have his urine drawn off and live a very comfortable life for many years. It is not usually necessary for the urine to be drawn every day, but as a rule periodically. These patients will come from one month to two months, perhaps six months or a year, and not require the removal of the prostate gland.

The second essayist has brought out some very good points relative to the diagnosis of enlarged prostate. I agree with him in every particular, and I do believe that it is not sufficient to merely say that our patient has an enlarged prostate. We must diagnosticate more carefully, by all the means at our command—the cystoscope, bimanual examination, palpation, etc. We should use all of these, and determine as to the malignancy of the prostate. Of course, malignancy should require early removal, but I am not yet ready to say that the presence of an enlarged prostate gland means that we should do a prostatectomy for fear the bladder should become infected. When I can get better results from prostatectomy, when surgery provides better results from prostatectomy, then I am ready to recommend early operation.

Dr. W. T. Elam, St. Joseph: This interesting subject having come into prominence practically within the last decade, the end results are still to be determined. Early diagnosis is an important thing, in order that the physician or surgeon may be able to properly advise his patient as to whether the prostate should be removed early, or whether he should wait until after infection had taken place. The risk would not be so great did we but wait on infection of a local character, but as a rule, when you have infection, you have involvement of the bladder, the ureters, the kidneys, and often uremo-septic products in the blood. The great majority of prostatics that are operated upon are not operated upon for the mere removal of the prostate. The causes of the large mortality percentage, are the advanced age, the infected condition of other organs, and the poisoned condition of the system as a whole. That is what makes the mortality; it is not the operation of prostatectomy, whether you do it by the perineal or by the suprapubic route. Every case should be studied, and a man should not ally himself, as a matter of routine, with one route as against another, but should use his judgment. As the first essayist has said, the time is coming when you are not going to remove at every operation all the prostate, just because the prostate is there; the time is coming when you will remove only that portion of the prostate which is revealed by the sense of touch or sight to be diseased. There is no occasion for tearing out the prostatic urethra for the removal of a nodule the size of a marble. The time is coming, in my judgment, when men will perform operations of a conservative character upon the prostate, and these operations will contemplate only the removal of the diseased tissue. It is better that they should be compelled to submit to a second operation at some future time, for an additional growth, if necessary, as the prostate, in most of the early cases, is not wholly involved. After the patient has reached the age of 65 years, there ofttimes is a more or less diffuse involvement.

Now, the question is, what do you perform the operation of prostatectomy for? First, to meet extreme conditions that develop, and second, to remove the obstruction, i. e., the prostate, and to do away with the use of the catheter. The suprapubic route, in my judgment, if that portion of the prostate is involved which is accessible by the suprapubic route, is the operation which will admit and allow of functional activity being to a certain extent maintained. We all know that the prostate is a genital organ, and a certain amount of functional activity does remain in those cases where the suprapubic route has been used.

Now, as to drainage, I want to take issue with Dr. Roberts. I believe that the suprapubic route is by all means the best route for drainage, where you have an infected bladder filled with infected urine. As I pointed out in my paper last year, you can remove the tube and replace it at will. You can irrigate the bladder. If the bladder fills up and the tube clogs up, you can remove, sterilize and replace without pain or difficulty. You can remove the prostate and put in a perineal drain, but unless you destroy the internal sphincter—which you do not do, or should not do—you will find that the bladder will ofttimes expel the tube down into the perineal wound, out of the field of action of the internal sphincter, and, as a result, the bladder fills up and periodically empties itself. This calls for bladder work, which it is desirable to avoid. Where you need drainage of the bladder—and you do in most of the advanced cases—you should, in my judgment, always adopt that plan that will most satisfactorily and continuously drain the bladder.

Dr. J. De Voine Guyot, of Jefferson City: I am somewhat surprised in these discussions not to have heard the Bottini operation as much as mentioned. I understand it is very widely condemned in the West, but not so among the Eastern operators. I believe that the condemnation of this operation amongst the men of the West is due to an improper selection of their cases. In the hands of my former chief of clinic, Dr. Horwitz, the operation has proved a very successful one in those cases of a fibroid enlargement of the middle lobe of the prostate. I would like to hear some discussion on this operation, as it has proved very effectual in the hands of my former chief, as well as myself.

Dr. Jacob Geiger, of St. Joseph: The perineal route for the removal of the prostate is generally looked upon as an advance in surgery, but to say that this is the only method of operating, or that the suprapubic is the only method, is not correct. We cannot adapt our cases to methods, but must apply methods to our cases. There is a very great difference in our cases of prostatic disease. First, a distinction should be made between chronic hypertrophy and acute inflammatory conditions, with enlargement and swelling of the prostate. There is a time for operating. In chronic cases, with gradual closure of the urethra, with residual urine, and before the patient's system is contaminated by septic urine, such patients should receive one or the other method. Now, we know that enlargements, or swellings of the prostate or neck of the bladder produce to some extent anatomical changes in the position of the prostate. In one man we will be able to reach it by the perineal route, within two inches, in another case four inches. Sometimes, when the lobes are enlarged, they are crowded up beside the bladder, so that the patient has to be operated upon by the suprapubic route. Then again, this class of patients with septic urine, residual urine, nausea, vomiting, and rise of temperature, are poor subjects for a radical operation. Such patients must be relieved. How relieved? Relieved of what? Not to remove the prostate, but merely to give relief to

the locked up poisonous urine, to save their lives for the time being, and to improve the general condition. This can be done by suprapubic cystotomy, or it can be done by urethral irrigation, by draining the bladder with a catheter, by washing it out, and giving the patient a little time to recuperate, then followed by a subsequent radical operation. If you remove the prostate in already septic cases with all the trauma, and laceration that is necessarily done, you will lose a large percentage, from shock, sepsis or trouble with the kidneys and suppression of urine.

As to drainage, I cannot understand how you can get as thorough drainage by the suprapubic route as by the perineal. I have had some experience—perhaps a dozen cases—with the suprapubic route, and the same number by the perineal. I have lost two by the suprapubic and none by the perineal, so far. But the thing is this,—we must not have more laceration than is necessary. If we want to prevent further spread of infection, let us give a good outlet. If we have perfect drainage, a good outlet, there is less danger. Therefore with a large tube placed in the perineal route, properly protected, that is, packing gauze alongside of it so as to keep the urine away from the raw surfaces, through which we can irrigate, and where there will be no locked up urine, the chances for recovery are certainly fair.

Dr. P. Y. Tupper, of St. Louis: Just one word regarding the accessibility of the prostate in prostatectomy. I must disagree with my friend, Dr. Griffith, when he says that this business is done in the dark. I believe that most of the steps in prostatectomy are done directly under the eye. Regarding the accessibility of the prostate, it seems to me—to use two terms that are not surgical—that it depends a good deal upon "push" and "pull." Some of us recall the method of the late Dr. Bryson, in rendering the prostate accessible for operative procedure. He frequently opened the prevesical space by suprapubic incision, and with two fingers passed downward in front of the unopened bladder, the prostate could be pushed well down toward the perineum, after the perineal section had been made. It is remarkable how much space can be gained thereby, and how nicely the prostate can in a certain number of cases, be brought into the perineal wound. That is the "push." After the perineal incision is made and the membranous urethra opened, a Young's tractor is introduced into the bladder and traction made on the prostate. This is the "pull." By means of this combined procedure, prostates that are most inaccessible are brought so well into the perineal wound that the steps of the operation are directly under the eye.

Dr. C. H. Wallace, of St. Joseph: I am one of those who believe that when a man begins to be robbed of the comforts to which old age is entitled, when he begins to have frequent urination and painful urination, he is entitled to the consideration that surgery offers for relief, and not the temporary one of the catheter. I believe that the danger period in a man's life comes when he begins to use the catheter, and in my opinion the cases which invariably recover are those which are operated upon early, before the bladder becomes infected and the kidneys beyond. As to the methods of operation, the recommendation of an operation always carries with it the inference that its execution is to be done by a man familiar with this particular line of work, and upon this depends the question of mortality. The mortality in these cases we know is not alarming. The operation in those patients who have chronic infection of the bladder, ureters and seminal vessels, is always a hazardous one. I am somewhat wedded, in the great majority of cases, to the perineal route. Of course, the physical condition

of the patient should always be a guide as to which method is to be employed, and this can be decided only by the judgment of the operator himself. As to the inaccessibility of the prostate through the perineal route, one important thing is the position of the patient: the extreme flexion of the patient, a sand-bag placed under the hips; and the patient flexed upon himself to the limit, which throws the prostate down. This position furnishes a great advantage in the perineal route.

As to drainage, I have never been one of those who could understand how you could drain up-hill better than down. We learn from childhood that things run down-hill, and if we are going to drain the bladder, it seems to me that drainage should be done down-hill. Drainage depends entirely upon the condition of the bladder. If you have an uninfected bladder, a very little drainage is all that is necessary. If you have an infected bladder, the drainage is a most important matter, and I think we should have a tube kept in from ten to twelve or fourteen days, depending upon the condition of the bladder.

I would like to refer to one thing brought out in the discussion. I do not understand, and never have understood, why a man should recommend the Bottini operation. It is a blind, hazardous procedure. Why it should be advised as preferable to a surgical procedure that is within the view of both your eyes and your finger, I have never understood. I believe even the genito-urinary specialists are dropping it.

Dr. H. E. Pearce, of Kansas City: To the practitioner listening to this discussion this mornng, unfamiliar with the work of prostatectomy, must come the impression that we do not know very much about what should be done with the man with an enlarged prostate, since some of us advocate an early operation, some of us advocate waiting and some of us advocate the perineal section and others the suprapubic, while we differ also in the question of drainage. There is no question of the benefits of prostatectomy, however, where the patient is in a condition of invalidism or threatened invalidism, and whether we operate early or late, we know one thing, that we are going to be forced to operate sooner or later if we wish to see our patient remain alive. I prefer operation at the earliest possible date that I can reach the patient. I prefer the attack through the perineum. I have twice opened suprapubically after operating through the perineum. I see no reason why both openings cannot be made in extreme cases, cases with extreme infection.

There was a point brought out by one speaker that is worthy of more attention at the hands of those of us who are operating, and that is, the difference between drainage of the bladder and drainage of the operation wound. After the removal of such portion of the prostate as may be needed to secure a lowering of the trigone and the proper emptying of the bladder, there are two essential points in the technique to which every surgeon should give his attention. There is no doubt that I can see that field if the patient is placed in the proper position. The first point is to see that that portion of the bladder wall carrying large amounts of necrotic tissue is not left in a lacerated, open condition. If this has been torn or cut through, a reasonable attempt should be made for its repair; then the wound can be drained with a tube or a light gauze packing, or by iodoform gauze immersed in oil and balsam. This will drain the cavity from which the prostate has been removed, and if the bladder is drained by a catheter, we have the most perfect drainage possible, that is wound drainage and bladder drainage.

Dr. C. F. Roberts, in closing: In regard to early operation, some one has

said that we must not be in a hurry to operate. I tried to bring out that point in my paper as follows: If there is one single thought I want to impress upon your minds more than another, it is that we should take these conditions under consideration as early as possible, and not postpone the proper treatment, be it palliative or surgical. There is one other point, that in regard to the infected bladder, which is just the thing that we want the operation to prevent. We can take those old men and help them a great deal by giving them the right preparation, taking them into the hospital, and getting them into good condition. The cases that come to a man who is in this line of work are nearly always cases that have been neglected, and when we get hold of them they are just ready to take the last step. Therefore, we who make this line of work our daily vocation come in contact with that class of cases, and that is the reason that I made the remark in the paper, "Try to make thorough and careful examinations." Now then, the thing that caused me to write this paper was this. Just a short time ago I was visiting one of our neighboring cities, and while I was there I called on one of the physicians. A patient came in and told the physician that he was having some trouble with his urinary function. The physician wrote him out a prescription, and said, "take this and report again in a few days." It happened that that very case fell under my care. He came to me, and the first thing I discovered was a bladder that was two fingers' breadth above the umbilicus. We must investigate, and find out the conditions we are dealing with. We must try and make proper diagnoses. We must try to find out what we are dealing with, and then adopt the treatment that is indicated.

Do not think for a moment that I am going to do all my work by the perineal route. One of the doctors has mentioned removing these little growths. It was not removing these little tumors in the posterior part of the vesical neck that I had reference to. That is a different operation entirely, and would come under operations on the vesical neck or for tumors within the bladder.

I only wish I had time to elaborate on some of the points in my paper more completely. A few remarks now on the Bottini operation. At the present time, we have the Bottini instrument so that we can see fairly well what we are doing. We used to go blundering along in the dark sometimes relieving our patient, sometimes making him worse, and sometimes seeing him die. I have had a few cases that I think I have benefitted, and I have had cases where I know that I have done harm. Where the Bottini operation is really required, and where you get the most benefit, is where you have not got a thickened and hard middle lobe but a contraction of the vesical neck. Another thing we must learn is to differentiate between the prostate gland troubles and the vesical neck troubles.

SOME FORMS OF SCABIES SEEN IN PRIVATE PRACTICE.*

BY WILLIAM FRICK, M. D., KANSAS CITY, MO.

It seems to me worth while for a society like this to spend a little time in the discussion of this old subject. Especially does this seem to me pertinent, since I find that for several years in the immediate past it has proved a stumbling block to many physicians. The itching and consequent discomfort which practically always attend this disease are distressing and continue a long time if the disease is not recognized and cured. Cure is easily and quickly accomplished when the disease is recognized. It is, therefore, of great importance to recognize the disease early.

Hebra, in his classical work on the subject, has described the itch mite (acarus scabiei) and its habits so clearly that it seems impossible to improve on his description. Scabies, as we find it today in our dispensary practice and in some of our private cases, follows clearly the description he gives and these may be considered the normal or typical cases of the disease. I find these typical cases are nearly always recognized quickly and it is therefore unnecessary to spend any time in their consideration. It is the atypical cases which we find so frequently in our private practice which cause us to stumble.

This disease is not apt to appear at once as a generalized eruption, as we find is the case in eruptions caused by internal conditions. It is hardly to be supposed that a whole army of the mites will invade a human body at a single exposure. It is more likely that a few of them find lodgment on the patient and these few multiply until sufficient of them are present to draw attention to the disease they are producing. This process takes some time. Some idea of the time it takes may be gained from Kaposi's estimates that the female acarus deposits her eggs in the burrow she makes, at the rate of one or two daily until from twenty to fifty or more are deposited,—then dies. It requires from three to six days for the eggs to hatch, and a week or ten days more until she is ready to begin depositing eggs. We may thus see that it requires about two weeks for a fresh crop of the mites to begin work. These in turn would produce another generation in the same length of time, and a few generations produced in this way will create a vast amount of disturbance for the patient. All this would more rapidly take place if the mites were not interfered with. But the use of soap and water by people who have had the misfortune to contract this disease is a great hindrance

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to their development. For this reason we find many cases of sparse eruption among our private patients who patronize the bath quite freely. The *acarus scabiei* seems not to dislike the skin of a clean person, and therefore cleanliness does not entirely prevent its being contracted by our cleanest people. But the eruption is apt to be sparse and for this very reason we are apt to be misled in diagnosis. I find the involvement of the hands and wrists, especially the eruption between the fingers—generally looked upon as a most common occurrence in this disease—is entirely wanting in a large proportion of such patients, and when present at all, quite insignificant and easily overlooked. We can easily understand the reason for this if we reflect upon the fact that these patients wash the hands and wrists many times daily with soap and water, thus washing off the mites before they have time to penetrate the skin. In a family of nine people recently seen by me, all had the disease but only two out of the nine presented this classical feature of eruption on the hands. However, all of them showed the eruption on the body, especially over the abdomen. As the covered parts of the body are not subjected to this cleansing process so frequently the mite has a better opportunity to burrow and thus continue its work indefinitely, or until destroyed by local applications.

Half a century ago or more, Hebra observed that the favorite portion of the body for the development of scabies was the anterior portion from the nipples to the junction of the lower and middle third of the thigh. This still seems to be a correct observation, whether the eruption is thickly scattered or sparse. Practically all of the cases I see have it to a greater or less degree in this region. In males I find in a large majority of the cases the penis is involved. Another region generally involved is the forearm and flexor surface of the elbow. By speaking of these frequent sites of eruption, we do not mean to say that any part of the skin is entirely exempt. Even the scalp is infected in some cases—especially in babies. A few months ago I saw a baby whose scalp had been invaded by the acarus scabiei, and on account of it secondary infection produced impetiginous pustules and eczematous patches, until the original disease was pretty thoroughly masked. In such cases one may easily err in diagnosis. Aside from its distribution, the eruption in scabies varies greatly. This variation depends on the sensitiveness of the skin affected. The skin of one person reacts more violently, when subjected to the irritation produced by the parasite, than does that of another. Therefore we find more of an inflammatory process in one than in another. The essential lesion in this disease is the burrow, consisting of the punctate opening and the line indicating the direction the mite has tunnelled, stopping at the point it has reached. I find, however, that in most cases only the point of entrance is ap-

parent to ordinary observation. Only in places where the skin is thin and transparent can the line be easily followed. We find the irritation is generally sufficient to produce small papules or minute vesicles at the point of entrance. These we usually see in the early stages of the disease. Later they may be masked by secondary lesions caused by scratching, such as pustules, eczematous inflammations and scratch marks. In most of our cases we find evidences of the latter in the small blood crusts, caused by tearing off the top of small papules in the act of scratching. The presence of these small blood crusts is strongly suggestive of scabies.

A further destruction of surface epithelium and added infection from the pus cocci which happen to be on the skin, or under the finger nails, may result in pustules resembling impetigo. At times this feature becomes so prominent as to mislead; but if we examine carefully, we will find, besides the pustules, other characteristic features of scabies and some parts of the skin we will find free of pustules, but with the papules, vesicles and small blood crusts present.

Again, we may have, as a result of much scratching and rubbing, the development of an acute eczema with its attendant itching, inflammation, watery exudation and crusting. Hebra considered the whole inflammatory process in scabies eczematous, but this of which we speak is more than the inflammatory process aroused by the parasite alone. The whole surface of the skin in the patches so affected becomes swollen and weeping or crusting and the original disease is lost sight of—if we examine only these parts of the skin. Such cases emphasize my oft-repeated injunction to my students, "when you are diagnosing skin diseases examine all the skin or as nearly all as possible." A case of my own about two years ago caused me to emphasize this more than ever before. A young man came to see me on account of an eruption on his forearm. He rolled up his sleeve and exhibited a typical eczema of this arm. It was so typical that I at once prescribed for his acute eczema and took his word for it that this was all of the trouble. The next time I saw him I took the pains to examine further and found his whole body covered with the characteristic lesions of scabies. Only the arm had become thus eczematous and was giving so much more discomfort than the rest of the skin that he did not observe the eruption over the trunk. By making it a rule to examine the skin extensively in all cases of skin diseases, we will many times avoid error in diagnosis.

In this disease the first consideration is diagnosis, for when that is made it is generally easy to accomplish a cure. In this task we must depend largely on the character of the eruption, for I have not found it so easy to secure the acarus for microscopic examination. It can be done, to be sure, but they are rather elusive and besides when we acquaint ourselves with the clinical features of the disease we can readily recognize it without the microscope.

As for treatment, I deem it superfluous in this short paper to speak of it, except in those cases complicated by acute eczema. In these cases I have found it necessary to first treat the acute condition until the highly inflamed condition subsides, after which the parasite destroyers can be successfully used. After the source of the trouble is destroyed the injured skin may also require some further treatment to bring it into a healthy condition again.

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DISCUSSION.

Dr. John H. Duncan, St. Louis: I consider such papers very important to the general practitioner. My teaching is to endeavor to make the diagnosis, in all skin troubles, not so much from the history or from surrounding conditions, but if possible from the primary or initial lesion; and in the great majority of instances we can do that. We all know that in scabies the deep-seated vesicle is the primary lesion, which usually is on the hand, and may not be readily seen if few in number, as they do not rupture of themselves. I can understand how one may have an extensive scabies on the thighs or body and the hands be almost or perfectly free from eruption. I believe, however, that the medium of infection is through the hands and if we will stretch the skin and look carefully, we generally find a little sago-like elevation, and if we run a pin into it a little fluid will come out of it,—in short it is a vesicle. Then we may find the female acarus, or we may not find it; yet I believe that even in such cases we can get a history of deep-seated vesicles somewhere about the hands. Dr. Frick is correct in stating that we do get cases where there are no signs about the hands. Cleanly patients, who wash their hands frequently, keep down the infection on the hands. I agree that when a patient comes to us with a skin trouble, we should see as much of the body as possible. When the hips, genitalia, flexors (not the face or head) are involved, with the itching sensation and a multiform eruption, we have a group of signs all pointing to a case of scabies. A point of importance is the history of the case. Very often the dermatologist gets a patient from the family physician who writes that he knows it is not itch because sulphur won't cure it. Perhaps there are a number in the family and some of them are treated and cured while others are not even treated. The ones with scabies uncured reinfect those who have been cured and thus the disease runs indefinitely in that family and the family physician comes to the conclusion it is not scabies. The lesson is that all in the family must be cured at the same time.

Dr. J. P. Kanoky, Kansas City: You may have scabies on the body without any evidence of it on the hands I believe with Dr. Duncan that in the beginning of the disease the lesions were on the hand in 97 per cent. of the cases. When the disease is well pronounced on the body, it has existed for a number of weeks but by the use of soap and water on the hands the evidence of the disease has been eliminated from these parts. In the vast majority of cases I think the disease is carried by the hands to other parts of the body. Furthermore, it is necessary to thoroughly examine your case and not depend upon the evidence of one lesion brought before you. Recently a man was sent to me with the statement by his physician that he had measles. There was lachrymation, flushed face, etc.; he had been sent to the City Hall and the physician there pronounced it scabies. I found a small papular eruption, a hyperemic and sensitive cuticle; and a careful examination revealed pediculus pubis, the poison or toxins of which had

produced that intense irritation of the body. As soon as the parasites were destroyed the eruption disappeared. When an eruption of scabies is seen on the face and the body it is always in a case that has existed for a number of weeks; and this is equally true in the eczematous conditions. The deep-seated vesicle so well described as a "sago grain" is to my mind the first manifestation of scabies, and is almost invariably on the hand, or wrist.

Dr. Frick, in closing: I agree with the gentlemen discussing the paper that in the beginning of the eruption you will find the lesions on the hands, but we don't usually see the cases when the disease begins. There are first a few itch-mites on the hands and then a second or third generation scatters over the body. A large per cent. of our private cases do not have it on the hands at all when we see them. I find that most physicians, when they have a case of that kind, look for the lesions on the hands, so graphically described by Hebra, but in cleanly patients you rarely find it on the hands when treatment is applied for and that is why so many of these cases are diagnosed as something else.

(I)

THE RIGHTS AND OBLIGATIONS OF PHYSICIANS AND SURGEONS, UNDER THE LAW.*

(II)

MEDICAL JURISPRUDENCE THE LINK WHICH UNITES LAW AND MEDICINE.

(III)

AN APPRECIATION OF THE MEDICAL PROFESSION.

BY HON. B. B. CAHOON, SR., OF FREDERICKTOWN, MO.

In a practical way I wish to state (1) what is definitely settled, by the Courts, as to the legal rights and obligations of physicians and surgeons, (2) make some suggestions as to medical jurisprudence: the link which unites law and medicine, and (3) to express my appreciation of your profession.

(I)

The lawyer, who thanks heaven he knows nothing of medicine and the doctor who rejoices in his like ignorance of law, both exhibit stupidity and folly and make obvious their ignorance. Every physician needs to know much law; every lawyer, to conserve his vital powers and to try successfully medicolegal cases, needs to know a great deal of medicine.

In this country as well as in England (since the Medical Act of 21 and 21. Vict. C. 90) (1858) all regular physicians and surgeons can ordinarily sue for and recover for their services, and are liable for negligence in their practice. If they attend a patient, gratuitously, they are only liable to such patient for gross negligence, which is the want of and injuries arising from the neglect of ordinary care and diligence. As their duties relate to the preservation of human life it is gross negligence if the physician fail to give his gratuitous

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patron, in critical diseases or operations, the same attention a paid physician or surgeon would be expected to give.

Malpractice is the bad professional treatment of disease pregnancy or bodily injury from reprehensible neglect, ignorance, or carelessness, or the commission of acts, with criminal intent. In all actions for malpractice, the physician must be judged by the standard which he led the patient to believe he had attained. If he does nothing to mislead the patient, by making no representations, his responsibility will be measured by the degree of skill which he is proven to possess.

The law does not regard a physician as an insurer of a cure. Ordinarily he is not prevented from recovering for his services, whether the patient is cured or not. A physician, (and that, in this paper is meant to include also a surgeon) can, by agreement, undertake to perform a cure entirely or within a specified time. If he does not so perform it, he can not recover for his services. If there be no express contract to the contrary, the law construes a physician's employment to treat a case of disease, as implying an agreement on his part, to treat it with reasonable diligence and skill. If he does that on request of the patient, parent or master, the law awards him a reasonable compensation for his services, and nothing need be said as to such compensation. The general rule of a physician's legal liability is this: If he attends for, or in expectation of, a fee, he is liable for such want of ordinary care, diligence or skill on his part, as leads *directly* to the injury of the patient. To subject him to liability even in a civil action, for damages for negligence, or want of due care or skill, it is not enough, that there has been a less degree of skill than other medical men might have shown, or a less degree of care than even the physician himself might have bestowed; nor is it enough, to render him, so liable, that he acknowledged some degree of want of care. There must, to fasten the liability, for damages, upon him, have been a want of competent or ordinary care and skill, and the lack of both to such a degree *as to have led to a bad result.* Ordinary care is "that degree of care which persons of ordinary care and prudence are accustomed to use and employ under the same or similar circumstances, in order to conduct the enterprise in which they are engaged, to a safe and successful termination, having due regard to the rights of others and the objects to be accomplished." 8 Ohio 570.

Nevertheless, a physician or surgeon is bound not only to use such skill as he has, but to have a reasonable degree of skill and learning. He must exert his best judgment to bring about a good result. He is further bound to use the ordinary care, and skill and judgment of members of his profession as taught in his school, in detecting the nature of the patient's complaint as well as his treatment of it.

The Supreme Court of Missouri in the late case (1905) of Logan v. Field, 192 Mo., Reports 54, approval a series of instructions given

the jury for the defendant, patient, by the trial Court, in a suit by a physician for fees, wherein he claimed $160.00 and finally recovered $50.00, and thereupon appealed the case to the Supreme Court. The principles covered by the instructions are:

1. A physician may pursue a particular course of treatment and charge therefore, as long as he has reasonable cause to believe the disease of the patient will yield to the treatment and this without regard to whether the patient is or is not cured or benefitted by such treatment.

2. The physician has not unlimited discretion to serve his patient and to charge therefor. The treatment and charge are subject to these rules:

3. The patient has a right to expect good faith from the physician; also to rely upon the supposed superior knowledge of the doctor, to discover, determine and advise, what course should be pursued in his case.

4. A physician can not recover for worthless treatment, if he knew or ought, as a reasonably competent and prudent member of his profession, to have known of the uncertainty of a cure, and the patient went for and received such treatment because encouraged by the physician to receive the same or because the physician failed to inform him of the uncertainty of the treatment.

5. In accepting a patient, the physician in effect says, that he possesses and will exercise reasonable skill and judgment to discover the trouble of the patient and whether it is curable.

6. If a physician is conscious of his inability to understand or properly treat the patient's trouble, he should at once inform the patient thereof; concealment by the physician of his ignorance in performing unbeneficial service, is a fraud for which service the physician is not entitled to any compensation.

7. If the failure of a physician to discover and cure the trouble of his patient, is because the physician does not possess reasonable skill or because he does not exercise such skill, he is not entitled to any pay for his services.

8. The law does not permit a physician to recover for worthless professional services, even though the physician does not guaranty a cure, if such services are negligent, unskillful or unfaithful.

9. If a physician informs a person presenting himself for treatment that his disease or injury is curable when he knows it is incurable, or has no knowledge whether his representation is true or false, and thereby induces such person to undergo a course of treatment, such facts will render a physician liable in an action for deceit and will constitute a defense to his action for fees.

The law recognizes a varying standard of professional skill among physicians according to the circumstances surrounding them.

That standard may be different in the same state, or even in the same county. For instance, in country towns and in unsettled portions of the country, remote from the cities, physicians though well versed in theory, are rarely called upon to perform difficult and intricate operations in surgery, and therefore do not enjoy the greater opportunities for daily observation and practice, which large cities afford. It would be unreasonable and the law does not expect, from one in such circumstances, that high degree of skill, which an extensive and constant practice in hospitals and large cities, would imply a physician, thus surrounded, to be possessed of. A physician, though inexperienced and unlearned, may, in some circumstances, undertake a difficult case or operation, and in such case he is bound only to use the best skill he has, for the law sensibly recognizes, that many persons would be left to die, if country physicians were not allowed to undertake such intricate and difficult cases or cases in surgery. Notwithstanding this rule, if a person not of medical education, where professional aid can be had in time, undertakes an operation, or administers medicine which has a dangerous effect, and thereby occasions death, such person is guilty of manslaughter.

No particular system affords an exclusive test of skill, and homeopathic physicians stand upon an equality before the law with allopathic physicians. But one who professes to adhere to a particular school, must come up to its average standard of qualifications and skill, and is, by the law, judged by its tests and in the light of the acquirements of his school at the present day. Hence this is the law:—A physician who would now practice the reckless and indiscriminate bleeding, which was in high repute sixty years ago, or shut up a patient in fever and deny all cooling drinks, would find the old practice no excuse for his imbecility. No profession has made greater advances for the better than yours.

If a professional homeopathist, should violate the canons of homeopathy, he would be bound to show some very good reasons for his conduct, if it was attended with injurious effects.

Such a case came up in my legal practice thirty years ago. A homeopathic physician prescribed for the wife of my client, five drops, several times a day, of Fowler's solution of arsenic, continuously for three consecutive months. Her system became permeated with the poison and she lingered, as did the murdered man Cobb of New England over twenty-five years ago, and died shortly after the homeopathic physicians services were dispensed with. The physicians sued my client, the husband of the woman, for his services. The defense was that the treatment was not only in defiance of the rules of his school, which reprobates the administration of Fowler's solution of arsenic in doses of five drops, continued uninterruptedly, for more than thirty days, but that as the treatment being so grossly

negligent as to cause death, not only was the homeopathic physician not entitled to recover therefor, but was liable to the husband in an action for damages for the malpractice in the unnecessarily killing of the wife.

With the foregoing facts and by the depositions of homeopathic physicians of St. Louis, to sustain our theory, as to the malpractice and with the solution, analyzed by the then Professor Chauvenet of St. Louis and the result, in metalic arsenic, displayed on porcelain disks, at the trial of the case, it is scarcely necessary to say that physician did not recover his professional bill. He, however, was one who in that case, at least, was taught the importance of knowing some law applicable to his professional obligations to his patients. Anticipating its application in other legal proceedings he speedily left our state.

The state of health of the patient may have much weight in determining whether ordinary care and diligence have been used by the attending physician. What might be deemed ordinary care in some circumstances, would be gross negligence in others. A disease known to be rapid and dangerous, will, under the law, require more instant and careful attention and application of remedies than one comparatively harmless and requiring only good nursing.

So, beyond the manipulation of a fractured limb, a surgeon has often to contend with very many powerful and hidden influences, such as the habits, hereditary tendencies, vital force, mental state and local circumstances of the patient. These will often explain his ill success. Yet he is bound to inform himself of these facts, so far as they would likely influence, in the management of the case, the prudent physician. For example, a physician about to administer an anesthetic, is bound to inform himself as to the condition of the patient's heart, lungs or other organs, which if diseased, would warn a prudent physician against the administration of that beneficient agent.

A physician is not answerable for the errors of an enlightened judgment; but he is not permitted to interpose his judgment contrary to that which is settled in his profession. He can not attempt experiments; is bound to know the natural and probable results of the remedies he employs; must apply without mistake, what is settled by, and must keep within recognized and approved methods as taught by the experience and learning of his school. It must not, however, be forgotten that it is the duty of the patient to co-operate with his physician, and to conform to his proper and necessary prescription, but if he will not, or under the pressure of pain, can not, his neglect is his own doing or misfortune, for which he has no remedy at law, to hold his physician responsible.

The particular nature of the services which a medical man undertakes to render, often makes it his duty to continue them long after

he would gladly cease to do so. He may decline, absolutely, when called upon, to take charge of a case; but having once begun the task, he can not abandon it as freely. Even if his services are gratuitous, he must continue them until reasonable time has been given to procure other attendance; and if he is not attending gratuitously, he has no right to desert a patient, without a reasonable cause, before the end of the illness which he undertakes to treat.

Neither the querelous, peevish or ungrateful complaints nor the irritable, adverse criticism, by a seriously ill patient, afford any legal excuse, on the part of the physician, for abandoning such patient nor will they, all combined, release him from damages if injurious results follow his abandonment of such patient, without notice to him in time to enable him to procure another physician.

The law does not countenance quackery. Although it does not require the most thorough education or the largest experience, the medical profession, under the most favorable circumstances affords, yet it does require, that an uneducated, ignorant man, shall not, under the pretense of being a well qualified physician, attempt recklessly and blindly to administer medicines or perform surgical operations.

Damages ($7,500 in the case of Longan V. Weltmer 180 Mo. Reports 322) were recovered and the recovery was sustained, by the Supreme Court of Missouri, for unskillful treatment by an alleged magnetic healer of a patient. It was held, it was not necessary the injured party should show the treatment was not proper in magnetic healing. One holding himself out, as such magnetic healer, must be held to the duty of reasonable skill, in the exercise of his vocation. Failing in that, he is liable for any damages proximately caused by unskillful treatment of his patient. Persons who hold themselves out and accept employment, as experts, in any profession art or trade, are held responsible for the results of their work therein. If he does the best he can, yet his work is unskillfully done, he is liable. He takes the risk. A healer of diseases, who relies for diagnosis and remedies of disease, on occult influences, exerted by magnetic healers or on some mental intuition, received by him, when in an abnormal condition, takes the risk of the accuracy thereof and is liable for the consequences if ill results follow and he fails to treat the patient with reasonable skill.

Malpractice is proven and damages are recoverable by a patient, where the condition was wrongly diagnosed as dislocation of the hip, and he was treated for it, after osteopath method of manipulating the hip to its socket, and thereby suffered a shortening of the leg and curvature of the spine, although the patient in fact was suffering from incipient hip disease, which would, without proper treatment, have developed into the permanent shortening of the leg and curvature of the spine. (Grainger vs. Still, 187 Mo. 197).

If osteopaths teach the same text books as other schools of med-

icine, physicians of such other schools are competent to express an opinion as to the correctness of the diagnosis and treatment of disease by an osteopath. If he has no fixed rule, for instance, of disease of the hip, to which all osteopaths must adhere, he belongs to no school of medicine and other practitioners, who belong to other schools that follow fixed rules of practice, can testify to the correctness of a diagnosis and treatment of any case of alleged malpractice, as for instance, alleged hip disease by an osteopath. (Ibid. 187 Mo. 197).

A person not qualified, as not being a regular medical practitioner, but assuming to be or to practice as such and undertaking to treat another for a disease, is liable for an injury caused by ignorant and improper treatment by which the patient is rendered worse instead of better and is injured by the use of improper medicines he administers. If however, such irregular practitioner frankly informs the patient of his want of skill, or the patient is in some way fully aware of it, the patient can not complain or take advantage of the lack of that which he knew did not exist. Nevertheless, if death ensue, from such irregular and grossly ignorant and culpably negligent treatment by such irregular practitioner, in Missouri, the offense is manslaughter in the fourth degree, the punishment of which may be by imprisonment in the penitentiary for two years or by imprisonment in the county jail not less than six months or by a fine not less than five hundred dollars, or by both a fine not less than one hundred dollars and imprisonment in the county jail not less than three months. (R. S. Mo. 1899 Sec. 1835). But unskillful treatment in the case of sudden emergency by one not a physician if death ensue is not manslaughter. Such irregular practice of medicine, without a certificate of the State Board of Health, as to qualifications, to do so, on the part of any one, is, now except, in an emergency when regular and qualified practitioners are not attainable, the subject of criminal penalties, though in former times it was not, beyond punishment for manslaughter if death resulted from such malpractice The medical examiner statutes and those requiring reports of births, deaths, and contagious diseases, are constitutional, as are like statutes requiring physicians to comply with requirements as to prescribing opium, morphine, cocaine, whiskey and other enumerated drugs. No recovery for professional services can be had unless the medical examiner statutes are complied with. They also likewise apply as a rule to citizens living in other states, and they prohibit from practicing, unless expressly excepted therein, an unlicensed person undertaking to practice medicine or surgery under the direction and charge of a licensed physician, but they usually do not apply to Christian Science or the treatment of disease by "metaphysical" methods.

However, the Supreme Court of Texas has lately decided a novel case which, as to compensation for injuries radically reaches

Christian Science believers. A female Christian Scientist sued a railroad company for damages claimed to have been received by being expelled from a car. She alleged, as elements of such damages, mental and physical suffering, and recovered therefor, in the trial court. In that court, the defendant offered to prove (but the court excluded it) that plaintiff was a Christian Scientist; that she would not take medicine to alleviate any alleged pain; that she believed, through her religious cult she had attained an exalted spiritual existence, in which she lived above and free from all mental and physical pain and suffering; that to her, there was no such things as either; that so-called pain and suffering are not facts, but vagaries of people who permitted themselves to think and to believe either; that with her, it was not a question of actual mental or physical pain but only a question of thought, which by her cult she could and did control and did thereby exclude all sensation of physical pain or mental anguish and consequently had neither, was in no sense injured, and such being the case, she had no legal action for actual damages. On appeal, the Supreme Court, reversed the judgment of the trial court, holding it was error not to permit defendant to introduce the offered testimony sence it was pertinent to the main and essential inquiry and issue in the case, viz:—the alleged mental and physical suffering of plaintiff. Such ruling is logical, in this; mental and physical pain are sensations from causes. If there be neither, there has been no injury, and no damages; hence one who in religion holds to such a cult, in law, is bound by what he religiously teaches and preaches.

Another step in the same direction has been taken in Delaware, by the enactment of a recent law which prohibits Christian Science practitioners whose healing method is by prayer, from charging or receiving any compensation, gift or reward for or on account of their practice.

While, as later on stated, imagination and faith aid greatly in curing certain diseases, we know that however created, disease, pain and suffering are facts, and that they are not always as Christian Scientists claim, "the result of the carnal mind and represent only human error, ignorance, superstition, sin and erroneous and perverted beliefs," nor is it true as they further claim, that by means of Christian Science its devotees "have been delivered from *every form of disease*, * * * and misery," simply because we see them, like ordinary people, sicken, suffer and die. We know their claim to cure by prayer, malignant cancer and other affections which have never been cured in the history of the race, is stretching the power of faith and imagination to the breaking point. We know that when the wisest, most sinless and healthiest man, starts, wrapped up and well, to go a twenty mile over-land journey and encounters an unexpected blizzard, takes cold, has pneumonia and dies, that result was not of the

"carnal mind," but was the result of the blows of the elements which were too strong for him to overcome. We know the air and drinking water often become inoculated with disease germs which man inhales or swallows, and cholera, typhoid, malarial and yellow fever result with illness and death because the germs are stronger than man's strength to resist their assaults. They too are not results of "the carnal mind," not the product of "imaginary diseases," but are sad realities which usually no amount of prayer heal, but which faith and confidence mixed with the wise administration of medicine often to heal. We know that if Mrs. Eddy breaks her arm or limb only good setting of either, with pain and time, not, *alone* prayer, will heal it. In any event, we submit that those who practice Christian Science based *solely*, as is their practice, on prayer would do well to better prove their sincerity, than to charge for, accept or receive compensation and gifts for such prayer treatment, and we approve such legislations as the Delaware Statute.

The standard measuring the amount of a physician's compensation are these:—his learning, his skill, the nature and difficultty and the duration of the case, the number and frequency of his visits, of which he is usually the sole and proper judge, and the attention, care and zeal he has applied to the case. The pecuniary condition of the patient (save in Louisiana where the contrary has been held) is not in law, to be considered as a guide in fixing such compensation. In practice among you I imagine the rule is and should be different, in this: your charge against the rich patient is usually greater than against the poor; in short, is to and it does somewhat reimburse you for your charity practice, which in poor communities is often large. The latter practice no self-respecting physician can or will ignore. However physicians should not allow themselves, as is often the cas, to be imposed on on the plea of charity. Patients able to do so should because the service is rendered them when helpless, pay first, physician fees, just as our probate law after death makes such charges a preferred class of debts against the estate of the deceased, because no one *in extremis* should be without medical aid.

(II).

Medical jurisprudence or forensic medicine is law applied to medicine. It embraces the heights of the two sciences. It is that science which applies to the elucidation of doubtful questions in courts of justice, wherein medicine and law are blended. A science is so called because it is never fully acquired. If we reach the highest realm of knowledge, by intensest, study and observation, and measurably know ourselves, it is only to realize how little we do know. To succeed in but a little we must aspire to much, for in great attempts, " 'tis glorious e'en to fail." We are tested not by our perfections, for they are not the lot of man, but by our success in overcoming our imperfections.

Medical jurisprudence is by no means a fully developed science. It is growing constantly. It needs larger development. Statutes which comprise one part of our jurisprudence and are the work of legislatures, do not afford rules for the adjustment of more than half the legal concerns of mankind. We seek the unwritten law found in text books and reports of decisions for the rules of the common law and equity, to settle most contentions involving our lives, our persons, our fortunes, our liberties and our honor. All law is based on the needs and situation of the people. Its origin is the will of the people, based on such needs and on long established customs growing out of them.

If a question involves medico-legal attributes, the enlightened judgment of both professions only can solve it. As the two professions advance in learning, that advance sooner or later, is reflected by the rules courts adopt in medical jurisprudence. Comprehension of the true facts of the case and their solution of that case, and their application to the needs of the people and to civilization, are, in matters medico-legal, medical jurisprudence. Occasionally the law does not adopt, to their full extent, the last and best attainments of medical science, for the law is ultra conservative. Yet in time, it, by the needs of humanity reaches and adopts the last and best results of medical research. Thereby physicians engraft medicine upon law.

Originally, before a party could be acquitted of a crime, on the plea of insanity, the test in law of such insanity was this:—at the time of the commission of the offense, did the accused have the ability to know the difference between moral good and evil, or in short, between right and wrong?

Alienists of your profession now hold that is not the only test to determine the existence of insanity; nevertheless, it was your original test and the courts adopted it from you. Later and larger study and treatment of insanity, by learned physicians, discovered and declared, that test was too narrow and too rigid; that a man might know the right from the wrong and be so insane as to be impelled, irresistibly from a diseased brain to do the wrong and not possess the strength of will to resist doing it. Many insane men have been hung by the law circumscribing the test to the old rule of right and wrong. But the ceaseless researches and larger practice in insanity cases of physicians in a great measure has mitigated, if they did not in the Courts of many of the States, entirely eliminate the old rule, so that it is modified greatly by the addition of these other legal tests:—did he comprehend clearly the nature, character and consequences of his act? Was it the act of a rational or an insane person? Was he so irresistibly impelled to the commission of the act by an insane impulse that he had not the ability to resist that impulse, to control his action and to choose between right and wrong? Medicine asks the one question:—was the defendant's mind essentially impaired as to the reasoning faculties, or incapacitated from understanding and acting with

discretion in the ordinary affairs of life? If so he was medically insane.

Legal insanity, as we shall see, is quite different from that. In the Thaw case the instructions of the trial court limited insanity in law according to the code of New York which is practically the same as the law in Missouri. I consider the Thaw case badly tried, inasmuch as his counsel sought to prove he is not now, as the State was ready to concede, insane, and limited the insanity to just before, at the time and immediately after the homicide. Such defense that does not show consistent and long continued change of former character is open to suspicion.

Insanity is a disease of the brain, often superinduced through disordered functions of the body. It may exist in various degrees. Its causes are innumerable. In discovering its absence or its existence no single isolated fact is conclusive, but it must be diagnosed by rules, the result of which are the researches of modern medical science. So, in the application of such rules, to cases at law, where insanity is the issue, all facts and circumstances pertaining to the condition, conduct and circumstances of the accused, contribute to determine the question of his insanity as do exciting causes and his hereditary tendencies. If such cases were accompanied by well defined delusions leading to the fatal act, and so connected with the crime and the insanity as to show that but for the existence of such insanity the homicide would not have been committed, and that the delusion believed by the defendant to be true had no existence in fact, but he was led to believe it and under the influence thereof believed he had a right to do the act he did and that thus the act was the result of his insanity, the task of alienists and courts in reaching just conclusions in insanity cases, as to the insanity of the accused, would be easy. But such cases are usually more complex than that, in that, they usually involve some antecedent difficulty, which, mixed, with some elements of insanity, indicate the act was in spite of the existence of delusion, more the result of revenge than because of an insane condition of the slayer. So the Courts hold "that unless the defendant, was, by his insanity on the subject of the delusion, deprived of the mental power of drawing the proper conclusions in regard to the facts: in other words, deprived, by his insanity, of the power of knowing that the facts did not authorize the taking of life, his delusion upon the subject of the injuries can form no excuse for his act." (Baldwin vs. State 12 Mo. 223). Those quoted words have been the law in Missouri on the subject of insanity wherein alleged delusions are shown, since it was so declared in 1848. That old Baldwin case has repeatedly of late years been re-affirmed. (State vs. Schaeffer, 116 Mo. loc. cit. 112; State vs. Williamson 106 Mo. loc. cit. 173).

In the last cited case the Supreme Court said: "Whether the Courts in dealing with this subject have kept pace with the scientific

world and the humanity of the age, may well be questioned; but so far, it seems to us, this Court has adopted the only rule by which society at large can be protected.

We see no reason for overturning a well settled rule and attempting to follow the *ignis fatuus*, "incontrollable impulse." We might as well announce there would be no more prosecutions for homicide. Nevertheless, in such cases the jury is not required to believe beyond a reasonable doubt the defendant is sane in order to acquit, though the law presumes he is, and the burden is on him to prove he is not. The defense of insanity is established, when the evidence offered in support of it preponderates in favor of the fact and reasonably satisfies the jury that it existed at the time the criminal act charged was committed." (State v. Redemeir 71 Mo. 173). Men acquitted in cases wherein juries apply the "unwritten law" are not by them believed to be consistently insane. Juries acquit in such cases because they feel the defendant was morally justified in the swift killing of the seducer of a wife or daughter, in the act or immediately on the discovery of the seduction. They will not so acquit for a homicide committed long after such discovery, because in such cases, all shadow of "irresistible impulse" or "brain storm" pretexts for the homicide are absent. When a man long knows of such alleged seduction and then kills, the presumption is very strong it is premeditated murder solely for revenge. You need not be told it is a maxim of the law that it rewards the diligent and punishes the slothful.

The ordinary lawyer who makes no study of the learning of your profession, can not properly try cases involving medical questions. What does such a lawyer know of insanity, toxicology, epilepsy, palsy, botany, chemistry, anatomy, senility, idiocy, the nervous system, the brain and spinal cord and the nerves emanating from each, the circulatory or muscular system, the heart, stomach, liver, lungs or other viscera? He knows nothing of them. Even most learned lawyers must depend upon your profession for aid in the careful trial of cases involving any question of medical jurisprudence.

Medical jurisprudence is a question of evidence in court, determined by recourse to medical knowledge, through medical experts who may not only state medical facts as observed by them, but express opinions on the medical facts given in evidence in the case. Such opinions in many cases are entitled to great consideration; in others to little. They are worth in proportion to the skill and character of the physician giving the opinions, but juries are not bound by them but may give them such weight they deem such opinions entitled to. If they deem them unreasonable they may altogether disregard them. Medical books, by the weight of authority, are inadmissable to show what medical writers say, but parts of human skeletons and surgical instruments are admissable. To undertake to state all or even many of the cases in which medical experts have testified would roam over

the greater part of law and medicine and would exceed your patience. Like ordinary witnesses experts can in the administration of justice and in the absence of a statute to the contrary, be compelled to testify, especially if already on the stand for any purposes of the case, without any other compensation than the small per diem and mileage of ordinary witnesses, paid by the State, with rare exceptions fixed by Statutes, as in New York and California; but he can not be compelled to make special preparation to give expert testimony. But there are respectable authorities which hold a party calling a witness as an expert is liable for his services. However the usual practice is there must be a mutual understanding between the witness and the party so calling the expert before compensation by the latter can be recovered.

If the expert's character, learning and skill are high and his experience great, everything valuable in life, indeed life itself may often depend on his opinion. Therefore he has no right to give any other opinion in a law case, than that which is strictly within the scope of his scientific investigation. Thus grounded he should stoutly maintain it and give all reasons he can to prove he is right. A false or ignorant opinion in such cases, from a physician, is fearful to contemplate. Instead, for instance, of giving an opinion, that poison or wounds *did in fact produce* death, unless the fact is absolutely plain and conclusive, it is better the expert declare, that they, in his opinion, were sufficient to cause death, leaving the responsibility with the jury and not with the physician to find, if death was so produced. One cause of death may exist with another at the same time; for instance, arsenic sufficient to produce death is detected in the stomach of the deceased, yet the post mortem discloses the individual died of apoplexy. Remember to avoid in testifying as experts the use of technical or latin terms. Denominate things by the words the jury and the court know. Do not describe them through your professional vocabulary.

(III.)

The tri-une sciences, Theology, Law and Medicine, may not, in importance be greater than the others—Agriculture, Mining, the Mechanic Arts, Chemistry and Commerce, but they touch every citizen. The seven make his environment and each contributes to his well being. Theology is man's spiritual guide and promises him immortality, if he obeys its teachings. The Great Physician—Christ the healer—is our ideal of the true physician. Because his practice was restorative and so full of loving unselfishness, we hold closer to our hearts the faithful physician who exhausts his remedies and often himself, to restore us to health, than we do other men, unless it be the clergymen whole life is closest to Christ's example.

We should compensate, (for on the whole, your work, is poorest paid of all the learned professions), but we can not respect too highly the physician whose practice follows our ideal of the true physician.

As you do that, you are better than you dream. Some of you, I trust all of you, are successful, because to you, known or unknown, you so long to relieve your patients and so deeply sympathize with them, that, thereby, you are able to diagnose and to treat diseases successfully, as much by inspiring your patients with confidence in your skill and in your devotion to them, as by your prescriptions. The physician who does that has found his true vocation; failing in that he is not a full-fleged doctor. The influence of mental suggestion, of mind upon mind, and mind upon the body, are as truthful as they are wonderful. That such suggestion and influence work marvelous cures can not be denied. By both, in and out of your profession sick people are often restored to health. The faith they generate react on physician and patient, each aiding the other. Every physician has witnessed their good result and has realized his success and the patient's recovery have been as much their result as from medicines administered. So confidence in you, and in subtle but none the less mind healing by you, is a constant adjunct of your practice, be it resorted to consciously or unconsciously. Every physician so recognizes. We can no longer decry the wonderful things, on these lines, we witness. We know they exist and that they influence us greatly, for good or for ill. They are a part of God in man. Whosoever, in the sympathizing spirit, strives to aid another, to him shall not be denied somewhat of success, imperfect in many things though he may be. It is the good triumphing in us. Shakespeare was wide of the mark, in declaring the good in man dies, is interred with his bones, but the evil he does lives after him. The reverse is true; the good survives; the evil is neutralized and dies.

Who has not known a good country doctor like the late William Goff, of Fredericktown, equipped with sympathy for his patients and invoking all good and hopeful influences over them, while not learned in the modern sense, was through the foregoing virtues, coupled with his zeal for and attention to his patients, a most successful and greatly beloved physician? Who has not likewise known a good old unassuming backwoods physician like the late Doctor James M. Woods, of Wayne County, who, more learned and a deeply read student, applied the same virtues in his practice, and in critical cases left non-serious cases to bide their time, while he remained a whole day and night with the dangerously ill patient, applying his remedies, until the crisis had passed? Whose heart has not been drawn to such physicians? What parent who saw his family physician stay all night with his sick child, momentarily watching it and administering his remedies to meet the changing phases of its illness and not departing until a change for the better came, has not only been encouraged by such devotion but has been drawn to that faithful physician, by chains of gratitude only death can break? On the contrary, what but contempt, are the feelings of parents if, in illness, the physician's visit is

perfunctory and the child is left to chance and dies, without a correct diagnosis of, much less intelligent and sympathetic treatment, to stay its illness?

My conviction is, that the country doctor and lawyer, if equipped with great natural ability and adaptability for their professions and if enamored of them, and if studious therein, are the best. Because they are less distracted by society or extraneous things, they have more time to meditate and study than their professional brethren in large cities. Consequently they concentrate more thought on their work. In surgery that rule can not hold good. It is repeated operations that make a great surgeon. The view I have is confirmed when I know a country doctor who has restored to health nine members in one family all suffering from severe typhoid at the same time. Yet his fame is but local. As to the special diseases of our climate with which they are familiar and are often called to treat, many of our country doctors have successful records. Thirty years ago when spinal meningitis was epidemic in his section of Wayne County, the late Dr. James H. Webb, who afterward removed to Washington, never lost a case. The recoveries wrought by him were usually unaccompanied by ill aftermaths. If the three physicians I have named were met by ordinary denizens of a city on our highways, visiting their patients, so homespun were they in looks, speech, dress and in ways, that denizen would, did he know their mission, imagine it was malpractice on the part of patients to employ them.

I need not impress on this Society the importance of correct diagnosis and prompt treatment of disease at the outset, nor need I suggest that constant study, long practice, close observation and much knowledge of the patient, his surroundings, habits and his hereditary tendencies are essential to make a successful physician. What I do wish to impress on you, is the honor and the pleasure that is and has been mine, to appear before you and to contribute if I can and if I have done, to your pleasure and to your enlightenment and to express my appreciation of and encouragement to you and your profession.

MASTOIDITIS WITH PYURIA AND INTERMITTENT HEART BEAT.*

BY J. S. WEVER, M. D., KANSAS CITY, MO.

C. D. N., age 65, pension office clerk, Topeka, Kan. Abscess started on the back of neck Jan. 20, 1907; was cut Jan. 29th, again Feb. 2 and again Feb. 13th. Went to Hospital in Topeka Feb. 24 and left there March 22nd. Has been deaf in *left* ear for the past forty years, probably the result of recurrent attacks of suppurative otitis media. Hears loud conversation close to ear on that side. In the *right* ear (operated side), had been no discharge up to time of neck abscess (carbuncle) although he had been a little deaf in that ear. No tubercular or specific history. Entered Soldier's Home at Leavenworth in 1889 with heart trouble and pyuria and edema marked from the hips down. Had no edema since then. Was passing only 20 ounces of urine when he entered the Home. Has not had frequent micturition to any extent.

There were no distinct ear symptoms until first day after he left Topeka Hospital, when the right ear seemed a little irritated and second day it began to discharge. March 26th, a Topeka physician saw him and advised irrigation which was kept up till I saw him April 8th. At this time the ear canal was swollen so as to preclude seeing drum and has remained swollen since. Carbuncle wounds had healed. Treatment internally was ovo-ferrin and after April 15th (when a microscopic examination showed pus in urine without casts and no sugar) urotropin. Locally inflation showed a drum perforation. Hydrogen dioxide was used with bichloride gauze drainage frequently changed.

For nineteen days there was no mastoid symptom other than the swelling of the ear canal. Then, on April 27th, he had pain referable to right ear, temperature 99.6, pulse about 80 but arythmic. April 29th, edema was marked and he was operated upon next morning April 30th at the German Hospital, with the assistance of Dr. Hyde and Dr. Andersson. Dr. Andersson administered morphine, gr. ¼, one-half hour before operation and gave ether with a Bennet Inhaler by the closed method, without gas as a preliminary. Patient went under without a cough or struggle. Ether used, 4 oz. Time administered 1 hour and 10 minutes. Dr. Andersson noted that the pulse, which had intermitted before, did not intermit during the anesthetic and patient recovered without vomiting and without shock. I am frank to say that I feared the anesthetic with this man's history and symptoms and I desire to commend heartily Dr. Andersson and his method of anesthesia. The patient's recovery has been uneventful. He left the Hospital May 22nd. There is some little discharge from the ear canal

*Case shown with report to Jackson County Medical Society, May 28, 1907.

but the mastoid wound is granulating and closing and hearing is improving in that ear. The operation done was a modified Schwartze, the antrum being curetted of its pus and broken down bone contents. Facial twitching was noted on passing a bent probe in the upper forward angle.

This case was noteworthy on account of the following: (1) His age, 65; (2) arythmic heart and (3) pyuria extending back for 15 or 20 years and yet a smooth anesthesia and recovery without after effects; (4) it followed, if it was not the direct result of, an abscess on the back of the neck (carbuncle); (5) mastoiditis occurred on the side which had *not* previously had recurrent otitis media.

To satisfy myself in regard to the prevalence of mastoiditis in *elderly* people I have looked the subject up with the following results. Beyond saying that it is common in children these say nothing about the relative frequency: Tillman's Surgery, Dennis's Surgery, International Textbook of Surgery, Politzer, Am. Textbook of Eye, Ear, etc., McEwen's Pyogenic Diseases of Brain and Cord (1893) and Whiting's Modern Mastoid Operation (1905). Posey and Wright (1902) say "Occurs with about equal frequency in children and adults."

The oldest case operated on was 87 (Laryngoscope, July '04) by McCaw. This case followed acute otitis media and died in 48 hours.

Barck (Laryng., Nov., 1903) summarizes 100 of his own cases from 4 months to 63 years of which 42 were under 15.

Wells, (Laryng., May, 1905) quotes Schwarts's 100 cases which showed 61 less than 20 years old or sixty-one per cent. Also quotes Cordoro and Amadoni's 165 cases which showed the greatest number of cases between 10 and 20 and next greatest between 1 and 10 years of age.

Hubbard (Laryng., July, 1906) quotes four cases complicated with diabetes running from 45 to 65 years old. One was operated on and all recovered.

Bryant (*Journal Am. Med. Assn.*, Jan. 19, 1907) cites 25 cases recently operated on, of which 15 (60 per cent.) were under 20 years old and the oldest 56.

Conclusion: So far as occurrence of mastoiditis with *age* is concerned I believe the following table would not be very far wrong:

60 per cent. are less than 20 years old.
70 per cent. are less than 30 years old.
80 per cent. are less than 40 years old.
90 per cent. are less than 50 years old.
99 per cent. are less than 60 years old.

501 Bryant Bldg.

MISSOURI STATE "DAIRY" AND "FOOD AND DRUGS" ACTS. APPROVED MARCH 16, 1907.

As the new pure food laws enacted by the last legislature are of interest not only to the manufacturer, jobber, dealer and consumer, but also and still more so to the medical profession of this state, whose hearty and active co-operation was of inestimable value to us in securing the passage of the acts, the JOURNAL OF THE STATE MEDICAL ASSOCIATION, through which the organized medical profession of Missouri can be better reached than through any other medium, has kindly consented to publish the two acts in full together with a short commentary thereon.

The laws as approved by the Governor March 16, 1907, and which went into effect June 16, 1907, are as follows:

AN ACT

To prohibit the manufacture and sale of foods, drugs, medicines, beverages and liquors, as defined in this act, which are adulterated or misbranded within the meaning of this act; and prescribing penalties for violations thereof.

Be it enacted by the General Assembly of the State of Missouri, as follows:

Section 1. No person or persons, firm or association of persons, company or corporation shall, within this state, manufacture, produce, sell, offer or expose for sale, or have in his, their or its possession, with intent to sell, any article of food or drug which is adulterated or misbranded within the meaning of this act, or cause or procure the same to be done by others.

Sec. 2. The term "drug," as used in this act, shall include all medicines and preparations recognized in the United States Pharmacopœia or National Formulary for internal or external use, and any substance or mixture of substances intended to be used for the cure, mitigation or prevention of disease in man or animals. The term "food," as used in this act, shall include all articles used for food, drink, confectionery or condiment by man or animal, whether simple, mixed or compound.

Sec. 3. A drug shall be deemed to be adulterated within the meaning of this act: 1. If, when sold under or by a name recognized in the latest revised edition of the United States Pharmacopœia or National Formulary, it differs from the standard of strength, quality or purity prescribed therein. 2. If its strength, quality or purity fall below the professed standard under which it is sold: Provided, that no drug defined in the United States Pharmacopœia or National Formulary shall be deemed to be adulterated under this provision if the standard of strength, quality or purity be plainly stated upon the bottle, box or other container thereof, although the standard may differ from that determined by the test laid down in the United States Pharmacopœia or National Formulary.

Sec. 4. Food shall be deemed to be adulterated: 1. If any substance or substances have been mixed with it so as to lower or depreciate or injuriously affect its strength, quality or purity. 2. If any substance or substances have been substituted wholly or in part for the article. 3. If any valuable or necessary constituent or ingredient has been wholly or in part abstracted from it. 4. If it is mixed, colored, coated, polished; powdered or stained in a manner whereby damage or inferiority is concealed; or if, by any means, it is made to appear to be better or of greater value that it really is. 5. If it contain any added substance which is poisonous or injurious to health: Provided, that when in the preparation of food products for shipment they are preserved by any external application, applied in such a manner that the preservative is necessarily removed mechanically or by maceration in water or otherwise, and directions for the removal of said preservative shall be printed on the covering of the package, the provisions of this act shall be construed as applying only when said products are ready for consumption. 6. If it consists wholly, or in part, of a diseased, filthy, decomposed, putrid, infected, tainted or rotten animal or vegetable substance, or any part or portion of an animal diseased or otherwise unfit for food, whether manufactured or not, or if it is the product of a diseased animal, or of an animal that has died other-

wise than by slaughter, and in case of meats, oysters or fish, sold or offered for sale in the fresh state, if such meats, oysters or fish shall have been inoculated, dusted, powdered, sprayed, rubbed, annointed, washed, sprinkled, fumigated, or in any other manner treated with any of the substances declared deleterious or dangerous by this act, or any antiseptic or chemical preservative or dye stuff whatsoever, whose use and apparent purpose is to mask decomposition, or to give to the meat, oysters or fish a false appearance of freshness or quality. And in the case of dairy products, if any such product be drawn or produced from cows fed on unhealthy or unwholsome food, or on waste, slops, refuse, leavings or residue of any nature or kind from distilleries, breweries or vinegar factories, or on food in a state of putrefaction, or from cows diseased in any way. 7. If it contains methyl or wood alcohol in any of its forms. 8. If it be an imitation of or sold as or for another article. 9. If, in the case of confectionery, it contains terra alba, barytes, arsenic, talc, chrome yellow or other mineral substances, a poisonous color or flavor, or other ingredients deleterious or detrimental to health, or vinous, malt or spirituous liquor or narcotic drug; or 10. If it does not conform to the standard of strength, quality and purity now or hereafter to be established by the United States department of agriculture.

Sec. 5. The term "misbranded," as used in this act, shall apply to all drugs and articles of food, or articles which enter into the composition of drugs or food, the package or label of which shall bear any statement, design or device regarding such article or the ingredients or substances contained therein which shall be false or misleading in any particular, and to any food or drug product which is falsely branded as to state, territory or country, in which it is made, manufactured, produced or grown, or as to the person, firm or corporation by whom it is made, manufactured, produced or grown.

Sec. 6. In the case of drugs an article shall also be deemed to be misbranded: 1. If it be an imitation of, or offered for sale under the name of, another article. 2. If the contents of the package, as originally put up, shall have been removed in whole, or in part, and other contents shall have been placed in such package. 3. If the package fail to bear a statement on the label of the quantity or proportion of any alcohol, morphine, opium, heroin, cocaine, eucaine (alpha or beta), chloroform, cannabis indica, chloral hyable by a fine of not exceeding fifty ($50) dollars for the first offense, and not drate, acetanilid, or any derivative or preparation of any such substance contained therein: Provided, that subdivision 3 of this section shall not apply to any drug prepared and sold on the prescription of a duly licensed physician, or prepared by a duly licensed pharmacist for immediate sale upon an order therefor.

Sec. 7. In the case of food, as herein defined, an article shall also be deemed to be misbranded: 1. If it is an imitation of, or is offered for sale under the distinctive name of another article. 2. If it be labeled or branded, tagged, stenciled or marked so as to deceive the purchaser, or purport to be a foreign product when not so. 3. If the contents of the package, as originally put up, shall have been removed in whole, or in part, and other contents shall have been placed in such package. 4. If it fail to bear a statement on the label of the quantity or proportion of any morphine, opium, heroin, cocaine, eucaine (alpha or beta), chloroform, cannabis, indica, chloral hydrate, acetanilid, or any derivative or preparation of any such substances contained therein. 5. If, in package form, and the contents are stated in terms of weight and measure, they are not plainly and correctly stated on the outside of the package. 6. If the package containing it, or its label, shall bear any statement, design or device regarding the ingredients or the substances contained therein, which statement, device or design shall be false or misleading in any particular: Provided, that an article of food which does not contain any added poisonous or deleterious ingredient shall not be deemed misbranded in the following cases, viz.: (1) In the case of mixtures or compounds which may now, or from time to time hereafter be known as articles of food under their own distinctive names and not an imitation of or offered for sale under the distinctive name of another article, if the name be accompanied on the same label or brand with a statement of the factory or place where said article has been manufactured or produced; (2) in the case of articles labeled, branded, stenciled or tagged so as to plainly indicate that they are mixtures, compounds, imitations or blends, and the word "mixture," "compound," "imitation," or "blend," as the case may be, is plainly stated on the package or container in which they are offered for sale: Provided, that

the term "blend" as used herein shall be construed to be a mixture of like substances; not excluding harmless coloring and flavoring ingredients used for the purpose of coloring and flavoring only; and, provided further, that nothing in this act shall be construed as requiring or compelling manufacturers of proprietary foods, which contain no unwholesome ingredient, or substance added to increase the bulk or weight of the finished product, to disclose their trade formulas, except in so far as the provisions of his act may require, to secure freedom from adulteration or misbranding.

Sec. 8. If a statement of any of the ingredients of an article of food or drink, or of an article entering into food or drink, is required by law to be stated upon the label or package of such article, or is stated upon the label of such article, whether required by law or not, such statement and the name and address of the manufacturer or vendor of the article shall be distinctly and conspicuously printed on the label or package in straight parallel lines of plain, uncondensed legible type, well spaced on a plain ground. The statement of ingredients shall be clearly separated from and not interspaced or confused with other matter, shall specify each and every ingredient by its ordinary name and shall be in the English language. The letters of said type shall be as large as any printed matter on the label or package (except the name of the compound, or chief article named herein, which may be in larger type), and shall not be smaller than 8-point Gothic caps: Provided, that in case the size of the package does not allow the use of type of such size, then the size may, with the approval of the dairy and food commissioner, be proportionately reduced. The required label shall be firmly attached to or printed on the exterior of the package or envelope of the said article, on the top or side thereof, and in plain sight; but the dairy and food commissioner may, in writing, approve specific labels not strictly in accordance with the above provisions if it is his opinion that the information is set forth thereon clearly enough for the reasonable protection of the purchaser.

Sec. 9. Drugs or foods labeled in violation of the provisions of sections 5, 6, 7 and 8 shall be deemed to be misbranded within the meaning of this act.

Sec. 10. No person, firm, association of persons or corporation shall deface, erase or remove any label or mark provided for in this act with intent to mislead, deceive, or violate any of the provisions of this act, nor cause the same to be done by others.

Sec. 11. Every person, firm, association of persons or corporation manufacturing, offering or exposing for sale, or delivering to a purchaser, any drug or article of food included in the provisions of this act, upon application of any person or an inspector, analyst or other officer or agent of the state, and tender to such person, firm, association or corporation of the value thereof, shall furnish a sample for analysis of any such drug or article of food which is so in his or their possession.

Sec. 12. No dealer shall be prosecuted under the provisions of this act when he can establish a guaranty, as provided for in the national food and drug act approved June 30, 1906, or a guaranty, signed by the wholesaler, jobber, manufacturer or other party, residing in the state of Missouri, or who shall have filed in the office of the dairy and food commissioner a designation of the name and residence of some competent person being and continuing a resident of this state, process served on whom shall be valid and acceptable as personally served upon such party in any suit or proceeding under this act, from whom he purchased such articles, to the effect that the same are not adulterated or misbranded in the original unbroken packages, within the meaning of this act. Said guaranty, to afford protection, shall contain the name and address of the party or parties making the sale of such articles to such dealer, and in such case said party or parties shall be amenable to the prosecutions, fines and other penalties which would attach, in due course, to the dealer under the provisions of this act.

Sec. 13. When construing and enforcing the provisions of this act, the act, omission or failure of any officer, agent or other person acting for or employed by any person, corporation, firm or association, within the scope of his employment or office, shall, in every case, be deemed to also be the act, omission or failure of such employer.

Sec. 14. Any person, firm, association or corporation who shall within this state, manufacture or produce, offer or expose for sale, or shall sell or deliver, or have in his or their possession with intent to sell, any drug or food, as defined in this act, which is adulterated or misbranded within the meaning of this act, or who shall fail or refuse, upon the application of a proper person, and the tender to him of the value thereof, to deliver to such

person a sample, sufficient for analysis, of any drug or article of food in his or their possession, as required by this act, or who shall violate any of the provisions of this act, shall be guilty of a misdemeanor, and upon conviction thereof, be punished for every such offense by a fine not less than ten dollars nor more than five hundred dollars, or by imprisonment in the county jail not to exceed six months, or both such fine and imprisonment, and shall, in addition, be adjudged to pay all costs and expenses incurred in inspecting and analyzing such food or drug. All fines recovered under the provisions of this act shall be paid to the state treasurer.

Sec. 15. All acts and parts of acts inconsistent with this act are hereby repealed.

AN ACT

To amend an act entitled "An act to create the office of state dairy commissioner, and to define his term of service, duties, and powers," approved April 8, 1905, by repealing sections 1 and 2, and enacting three new sections in lieu thereof, to be known as sections 1, 2 and 2a; and by adding eight new sections thereto, to be known as sections 10, 11, 12, 13, 14, 14a, 15, 16, 16a and 17: and appropriating money for the enforcement of said act as amended.

Be it enacted by the General Assembly of the State of Missouri, as follows:

Section 1. That sections 1 and 2 of an act entitled "An act to create the office of state dairy commissioner, and to define his term of service, duties and powers," approved April 8, 1905, be and the same are hereby repealed and the following three sections enacted in lieu thereof, to be known as sections 1, 2 and 2a, in words and figures as follows:

Section 1. Within 30 days after this act shall take effect, the governor by and with the advice and consent of the senate, shall appoint a suitable person to be dairy and food commissioner, which office is hereby created, and which commissioner so appointed shall hold office until the first day of February, 1909, and until his successor is appointed and qualified. At the next regular session of the legislature, and every four years thereafter, the governor, by and with the advice and consent of the senate, shall appoint a dairy and food commissioner, who shall hold office for a term of four years from the first day of February of the year of his appointment and until his successor is appointed and qualified. Said commissioner shall be subject to removal by the governor for cause, and in case of vacancy in said office from any cause the governor shall appoint another person to fill the same for the unexpired term.

Section 2. Before entering upon the duties of his office, the person appointed as dairy and food commissioner shall make, subscribe and file in the office of the secretary of state, the oath of office prescribed by the Constitution and shall give bond to the state in the sum of ten thousand dollars, with sureties to be approved by the governor, conditioned for the faithful performance of his duties. Said commissioner shall receive a salary of two thousand dollars a year, payable in monthly installments, and his actual necessary raveling expenses while in the discharge of his official duties. He shall be provided with an office by the state board of agriculture at the seat of the state agricultural college.

Section 2a. The said commissioner shall have power to appoint a deputy, who shall have the same powers as the commissioner, and who shall receive a salary of twelve hundred dollars a year, payable monthly, and necessary traveling expenses. Said commissioner may also appoint, from time to time, such inspectors as the proper performance of the duties of his office may require, not exceeding six in number. They shall be paid at the rate of one thousand dollars per year for time actually employed, payable monthly, and actual expenses incident to the discharge of their duties. The persons so appointed shall have power to administer oaths in matters relative to the dairy and food laws, and shall have the same right of access to the places to be inspected as the said commissioner or his deputy. The said deputy and inspectors shall hold office during the pleasure of the commissioner, and shall take and subscribe the oath of office and give bond to the state in such sum and with such sureties as may be approved by the commissioner, conditioned for the faithful performance of their respective duties. The necessary chemical work of the office shall be done by or under the supervision of the chemist of the state experiment station.

Sec. 2. That said act entitled "An act to create the office of state dairy

commissioner, and to define his term of service, duties and powers," approved April 8, 1905, be and the same is hereby amended by adding eight new sections thereto, to be known as sections 10, 11, 12, 13, 14, 14a, 15, 16, 16a and 17, which said sections are in words and figures, as follows:

Section 10. It shall be the duty of the dairy and food commissioner to enforce all laws that now exist, or that may hereafter be enacted, regarding the production, manufacture or sale of dairy products, or the adulteration of any article of food or drug, or the misbranding of the same; and personally, or by his assistants, inspect any article of food or drug made or offered for sale in this state which he may, through himself or his assistants, suspect or have reason to believe are impure, unhealthful, adulterated or misbranded, and to prosecute, or cause to be prosecuted, any person or persons, firm or corporation engaged in the manufacture or sale of food or drugs, or dairy products, contrary to the laws of this state. Said commissioner shall make rules and regulations for carrying out the provisions of this act, and such rules and regulations shall conform as nearly as practicable to the rules and regulations at present established and which may hereafter be established for the enforcement of the act of congress approved June 30, 1906, and known as the "Food and drugs act."

Section 11. It shall be the duty of any officer entrusted with the enforcement of this act, when he is required thereto by any person, to purchase from the vendor of any article sold or exposed for sale a sample thereof, and submit it for analysis, in accordance with the provisions of this act: Provided, the person so requiring such purhase and analysis deposits with such officer, at the time such a demand is made, a sum of money sufficient to pay for such sample and analysis. If upon analysis such article is found to be adulterated, within the meaning of this act, such deposit shall be returned to him.

Section 12. The dairy and food commissioner, his deputy, or any one by him appointed, is hereby authorized and empowered to enter during business hours, in the performance of his duties, any factory, store, salesroom, warehouse, laboratory, drug store, or any other place where foods or drugs are stored or exposed for sale, or place where they have reason to believe such foods or drugs are kept or offered for sale; and he may, in lawful manner, procure samples of the said articles of food or drugs, or imitation thereof, suspected of being made or sold in violation of law, and cause the same to be analyzed or satisfactorily tested by the chemist of the state experiment station; and such analysis or test shall be recorded and preserved as evidence, and the certificate of such analysis or test, when sworn to by such chemist, shall be admitted as evidence of the facts therein contained in all prosecutions that may result from such violation; and it shall be the duty of said commissioner to make complaint of such violation in the proper county, and furnish the prosecuting attorney with the evidence thereof, and obtain a conviction for the offense charged. And in the discharge of his duties said commissioner, his deputy and assistants, shall have power to open any cask, tub, jar, bottle or package containing, or supposed to contain, any article of food or drugs, and examine, or cause to be examined, the contents thereof, and take therefrom samples in the presence of at least one witness; and he shall, in the presence of such witness, mark or seal such samples, and shall tender at the time of taking, to the manufacturer or vendor of such food or drug, or to the person having the custody of the same, the value thereof; samples may be purchased in the open market or at the factory, and if in bulk, the marks, brands or tags upon the package, carton, wrapper or other container, and the accompanying printed or written matter, shall be noted. The collector shall also note the names of the vendor and agent through whom the sale was actually made, together with the date of the purchase. Samples shall be divided into three equal parts; each part shall be labeled with identifying marks. One of the parts shall be delivered to the person from whom the purchase was made, or, if a guaranty has been given, such part shall be delivered to the guarantor. One of the parts shall be sent to the chemist of the state experiment station and one part shall be held under seal by the commissioner. The parts of the sample so divided shall be sealed by the collector with a seal provided for that purpose. Any person who shall obstruct the commissioner, or any of his assistants, be refusing to allow him entrance to any place which he desires to enter in the discharge of his official duty, or refuse to deliver to him a sample of any article of food or drug made, sold, offered or exposed for sale by such person, when the same is requested, and when the value thereof is tendered, shall be guilty of a misdemeanor, punishable by a fine of not exceeding fifty ($50) dollars for the first offense, and not

exceeding five hundred ($500) dollars, nor less than fifty ($50) dollars for each subsequent offense.

Section 13. It shall be the duty of the prosecuting attorney in any county or city in the state, when called upon by the commissioner, or any of his assistants, to render any legal assistance in his power to execute the laws, and to prosecute cases arising under the provisions of this act.

Section 14. When the examination shows that the provisions of this act have been violated, the said commissioner shall first cause notice of such fact, together with a copy of the findings, to be given to the party or parties from whom the sample was obtained, and to the party, if any, whose name appears upon the label as manufacturer, packer, wholesaler, retailer or other dealer. The parties so notified shall be given opportunity to be heard under such rules and regulations as may be prescribed as aforesaid. Notice shall specify this date, hour and place of the hearing. The hearing shall be private and shall take place at the office of the commissioner, and the parties interested therein may appear in person or by attorney. If the party whose name appears upon the label resides without the state he shall be entitled to reasonable notice by mail, at such address as may, with due diligence, be obtained. If, after such hearing, it appear that said food, drug or dairy product is adulterated or misbranded, or is a substitute or an imitation within the meaning of any law providing against the adulteration, misbranding, imitation or substitution of food, drugs and dairy products, said commissioner, or his deputy, or any person by him duly authorized, shall seize such goods and make complaint before any justice of the peace having jurisdiction in the city, village or township where such goods are seized; and thereupon such justice of the peace shall issue his summons to the persons from whom said goods were seized, directing him to appear not less than five nor more than ten days from the date of the issuing of said summons, and show cause why said goods should not be condemmned and disposed of. If the said person from whom the said goods were taken or seized cannot be found, said summons shall be served upon the person then in possession of the goods. The said summons shall be served at least five days before the time for appearance mentioned therein. If the person from whom said goods were seized cannot be found, and no one can be found in possession of said goods, and the defendant shall not appear on the return day, then said justice of the peace shall proceed in said cause in the same manner provided by law where a writ of attachment is returned not personally served upon any of the defendants and none of the defendants appears upon the return day. Unless cause to the contrary thereof be shown, or if said goods shall be found, upon trial, to be in violation of any of the provisions of this act or other laws which may now exist, or which may be hereafter enacted, it shall be the duty of said justice of the peace to render judgment that said seized property be forfeited to the state of Missouri, and that said goods be destroyed, or sold by said commissioner, for any purpose other than to be used for food. The mode of procedure before said justice shall be the same, as near as may be, as in civil proceedings before justices of the peace. Either parties may appeal to the circuit court as appeals are taken from justice courts, but it shall not be necessary for the state to give appeal bond. The proceeds arising from such sales shall be paid into the state treasury and credited to the general fund: Provided, that if the owner or party claiming the property or goods declared forfeited can produce and prove a written guaranty of purity, signed by the wholesaler, jobber, manufacturer or other person residing in this state, from whom said articles were purchased, then the proceeds of the sale of such articles, over and above the cost of seizure, forfeiture and sale, shall be paid over to such owner or claimant, to reimburse him, to the extent of such surplus, for his actual loss resulting from such seizure and forfeiture, as shown by the invoice.

Section 14a. After judgment of the court, notice shall be given by publication in such manner as may be prescribed by the rules and regulations aforesaid. If an appeal be taken from the judgment of the court before such publication, notice of that fact shall accompany the publication.

Section 15. The commissioner shall make an annuol report to the governor, on or before the first day of January of each year, which shall be printed and published. Such report shall cover the work of his office for the preceding year and shall show among other things, the number of specimens of food products analyzed, and the report of the analyst upon each one when the analysis indicates the same to be contrary to law; the

number of complaints entered against persons for violations of law relative to the adulteration and misbranding of food and drugs; the number of convictions had, and the amount of fines imposed therefor; an account of the money received and expended by him and his assistants, together with such recommendations relative to the statutes in force as his experience may justify. The commissioner may also prepare, print and distribute a monthly bulletin containing the results of inspections, the results of analysis made, or caused to be made, with proper explanations of the same, and such other information as may come to him in his official capacity, relating to the adulteration and misbranding of foods and drugs and of dairy products, so far as he may deem of benefit and advantage to the public; also a brief summary of the work done during the month by the commissioner and his assistants in the enforcement of the laws of the state; but not more than ten thousand copies of each of the monthly bulletins shall be printed, which printing shall be done by the state printer and shall be paid for in the same manner as other state printing.

Section 16. For the purpose of carrying into effect the provisions of this act and of the act entitled "An act to create the office of state dairy commissioner, and to define his term of service, duties and powers," approved April 8, 1905, as amended by this act, there is hereby appropriated, out of the state treasury, chargeable to the general revenue fund, the sum of twenty-five thousand ($25,000) dollars, or so much thereof as may be necessary for the payment of salaries and all expenses authorized by this act.

Section 16a. All articles of food and drugs in the hands of retailers and jobbers when this law goes into effect may be sold in the condition in which they are found, provided such articles are branded to the effect that the same were on hand July 1, 1907.

Section 17. All laws in conflict or inconsistent with, or repugnant to the provisions of this act, are hereby reapealed.

In the following I wish to call attention to the amendments to which we had to agree as a sort of compromise, and to other deficiencies of the bills due either to the activity of opponents or other causes. It would lead too far to go into detail into all the features of the laws or to try to answer all or even the more important questions likely to be asked by interested parties, some of which have already been asked and answered by the federal authorities. The laws are so plainly worded that explanations should really be superfluous.

STATE FOOD AND DRUGS ACT.

Title.

The original title was amended by adding the words "medicines, beverages and liquors." As these are included in the definitions of "food" and "drugs" and are not specifically defined anywhere in the act, these words are out of place, but, as their addition did not affect the value of the bill we made this concession to the opposition.

Section 2.

Ostensibly to make the Missouri law conform with the federal law, the opposition insisted upon striking out the words "all antiseptics, disinfectants, cosmetics" after the word "use" in the original. Whatever consolation this may afford them they are welcome to, as these articles are included in the definition of "drugs" anyway.

Section 3.

Subdivisions 2 and 3 of this section originally were worded as follows:

2. If, when sold under or by name not recognized in the latest revised edition of the United States Pharmacopœia, or National Formulary, but which is found in some other edition of the United States Pharmacopœia, National Formulary or other standard work on Materia Medica, as hereinafter defined,

it differs from the standard of strength, quality or purity laid down in such work;

3. If its strength, quality or purity fall below the professed standard under which it is sold:

Provided, that no drug, defined in the United States Pharmacopœia, National Formulary or other standard work on Materia Medica, as hereinafter defined, if sold for any other than medicinal purposes, shall be deemed to be adulterated under this section if the standard of strength, quality and purity be plainly stated upon the bottle, box or other container thereof, although the standard may differ from that prescribed in said United States Pharmacopœia, National Formulary, or other standard work on materia medica. By a standard work of materia medica as used in this Act is meant one designated as such by the State Board of Health after such designation shall have been published by the State Dairy and Food Commissioner in his annual report or monthly bulletin.

It was my desire to secure a fixed standard for as many of the medicinal preparations as possible, to prevent dozens of different formulas from parading under the same name. I had convinced the retail druggists of the reasonableness of this provision but the representative of the "United Pure Food Com. of Mo.," who attended the conference at Jefferson City at the time (I was unable to attend this particular hearing) was forced to yield to the opposition. As drugs must conform to the standard under which they are sold, this change may not cause much trouble.

SECTION 4.

Under subdivision 5 certain colors acknowledged the world over as poisonous, and certain antiseptics and preservatives were specified as being deleterious and injurious to health. This was done to save the commissioner a lot of time-consuming litigation. The provision inserted in its stead, "Provided, that" to "consumption," by the opposition, is entirely superfluous as any person preparing food in the manner indicated would not violate any provision of the law and the provision will afford no protection to him or the dealer if the material used should penetrate into the food stuff.

The provision under subdivision 6 in regard to dairy products, is an excellent one; it was inserted at the request of the representative of the Dairymen of St. Louis.

Subdivision 10 was originally worded as follows:

10. If it does not conform to the standard of strength, quality and purity now, or hereafter to be, established by the United States Department of Agriculture; provided, that in the absence of any such standard, the State Dairy and Food Commissioner may, with the approval of the State Board of Health, establish other, or revise existing, standards for articles of food.

The standards adopted by the U. S. Department of Agriculture are expressed in the form of definitions, with or without accompanying specifications of limit in composition. The standards fixed are such that a departure of the articles to which they apply, above the maximum or below the minimum limit prescribed, is evidence that such articles are of inferior or abnormal quality.

The legality of the standards adopted has been questioned but without good grounds as far as Missouri and those standards that had been established at the time our legislature adopted them are concerned.

Unfortunately the U. S. Agricultural deparment is strangely slow about completing its lists of standards, and it was to remedy this deficiency of standards that the above mentioned provision was inserted in our original bill. Under pretense that too much power would be vested in a single individual, and when a commission, to consist of one member each of the State

Board of Health, Board of Agriculture and Board of Pharmacy, was suggested and although the standards fixed by the commission were to be only temporary, the opposition contended that there should be absolute uniformity of standards throughout the country and succeeded in overruling my objections to the amendment. To show how much care must be exercised in establishing or making a standard, I will say that the standards above referred to define "Skim milk" as "milk from which all or a part of the cream has been removed and contains not less than nine and one-quarter per cent. of milk solids." As full milk, from which skim-milk is made must contain not less than eight and one-half per cent. of non-fatty solids, the standard for skim-milk should provide that eight and one-half of the nine and one-quarter per cent. milk solids should be non-fatty. The omission of this provision will probably cause some trouble wherever these standards have been adopted.

SECTION 6, SUBDIVISION 3—SECTION 7, SUBDIVISION 4.

The original bill provided that the package should bear, in addition to the drugs enumerated in the law at present, a statement of the quantity or proportion of arsenic, antipyrin, strychnine, saccharin or any narcotic or otherwise deleterious or injurious or dangerous substance. Why shall not the purchaser of a proprietary or patent medicine know the ingredients (more especially the narcotic and more potent drugs) contained in his medicine. Greater care would probably be exercised by the laity if they knew what powerful and dangerous drugs entered into the composition of an otherwise innocent looking mixture. Will not the intelligent public and our own profession awake to a sense of its duty toward the helpless infants who are indiscriminately dosed with narcotic soothers to put them to sleep at night and prevent them from disturbing the slumbers of their tired parents.

SECTION 7, SUBDIVISION 6, PROVISION 2.

The addition or insertion of the words "not including harmless coloring and flavoring ingredients used for the purpose of coloring and flavoring only" is just simply rank, "It's the limit!" But as such colors and flavors are added solely to make the article appear to be better or of greater value than it really is, these compounds, mixtures and blends will be subject to subdivision 4 of Section 4. The public should refuse to buy food upon whose label does not appear the statement "no color, flavor or preservative has been added to or been used in the preparation of this food."

SECTION 12.

The original bill contained no federal guaranty provision: it was inserted by the representatives of the wholesale druggists. To offset this provision, which practically deprives the state of the power to punish a guarantor residing outside the state, Representative Dr. Wilson proposed the provision that the guarantor residing outside the state should designate a suitable person residing in the state, services served on whom should be valid as though personally served on the guarantor. In the excitement of the last days of the session and the stress of business and numerous attacks on the food laws, the clause was misplaced, so that instead of limiting the federal guaranty, it now provides for another guaranty or rather a substitute therefor which will probably not be willingly submitted to by the foreign manufacturer. But although we cannot reach the foreign guarantor through our own law he will not escape anyway as section 5 of the Federal Food and Drugs Act provides "That it shall be the duty of each district attorney to whom"—"any health or food or drug officer or agent of any state" . . . . "shall present satisfactory evidence of any such violation, to cause appropriate proceedings to be com-

menced and prosecuted in the proper courts of the United States, without delay, for the enforcement of the penalties as in such case herein provided. A statement of weight or measure on the label is not required by this law and would hardly come within the scope of a food law but if the dealer or manufacturer marks the weight or measure on the package on demand of the purchaser then the matter is within the operation of this act.

The legend, now found on many bottles and packages, "Guaranteed under the Federal Food and Drugs Act, Approved June 16, 1906, Serial No." has been quite generally misinterpreted. It does not mean that the government guarantees the article nor even that the federal authorities have tested it, it merely means that, should the article so marked be found adulterated or misbranded not the dealer but the party who has filed the guaranty bearing the serial number, shall be amenable to the prosecutions, fines, etc., which would otherwise attach to the dealer under the provisions of the "Food and Drugs Act."

AMENDED DAIRY ACT.

At the eleventh hour, after this bill had passed the senate without a dissenting vote, a fierce attack was made on it by the opposition at a private hearing at the Monroe House and on the floor of the House. But Representative Dr. Wilson and I so stubbornly resisted their demands that, with one exception, the compromises agreed to do not materially affect the efficiency of the law. Had the opposition had their way this bill would have been little more than a conglomeration of meaningless phrases.

Section 2a.

The force provided for in this act is, of course, insufficient to enforce the "Food and Drugs Act, Approved March 16th, 1907," satisfactorily. This will be apparent enough by the time the next legislature meets, to insure the safe passage of a bill providing for at least twice the nummber of inspectors provided for at present.

Section 10.

The rules and regulations formulated by our commissioner need not necessarily conform exactly to the federal ones; the commissioner may add to or change or drop any of the federal rulings should he deem it desirable to do so.

Section 14.

The opponents were anxious to have the confiscation clause stricken out of this section altogether.

It was agreed upon between Dr. Wilson and myself that the goods found to be adulterated, should be seized as soon as the party holding them received his summons for the private hearing. For some unaccountable reason, the law is now so worded that the goods are to be seized after the hearing, thereby affording the dealer ample time to dispose of them. The original bill also provided that the goods seized were to be sealed and left in possession of the owner until final disposition was made of them.

This private hearing is a very objectionable feature which we could not keep out of our law because it is also found in the federal law and we conceded this to save the confiscation clause, after we had pruned off the provision that the commissioner or deputy was to hold the hearing in the county where the goods were found.

It is not probable that the chemist of the State Experiment Station would err materially or that he would make affidavit on the strength of a dubious

finding or that the commissioner would maliciously use such findings to injure a dealer as the matter would be thoroughly aired in court and a few such blunders would soon cause them to lose their positions. On the other hand such private hearings might prove exceedingly profitable to an unscrupulous commissioner and a willing chemist.

SECTION 15.

As nothing is feared more by the adulterer than publicity, the press (both lay and medical) of Missouri should publish the information given out by the commissioner in his monthly bulletins. This would enable the public to judge of the efficacy of the department, would urge the commissioner and his staff to work energetically and would pave the way for the amendments I have suggested and others which will suggest themselves in the course of time.

SECTION 16a.

As the wholesalers seemed much concerned about the time when our law should go into effect and more especially as to what should be done with the goods then on hand, relabeling or loss of some of the goods being likely to cause great hardship on the retailer (who would probably cause the wholesaler a slight hardship also), I finally suggested that the law be allowed to go into effect in due time and that all goods on hand July 1st, 1907, be so marked. This does not exempt goods shipped into Missouri from the outside, from the provisions of the Federal law; see sec. i, regulation 17, Rules and Regulations, etc.

In the above I have tried to set forth among other things, the undesirable features to which we had to concede as a compromise. Considering the fact that we were in no position to judge accurately of the strength of the opposition, and when we compare what has been accomplished with what would probably have resulted had we not introduced our measures and had either the bill introduced by the Federation of Women's Clubs or the one introduced for the Grocers, been passed, I feel that our work has been of value to the state. I had submitted copies of our bills to the chairman of the Pure Food committee of the Federation of Women's Clubs at Columbia last December and to the grocers as well, but they were unwilling to endorse our work.

Pure Food legislation is no experiment. The "Federal Food and Drugs Act, Approved June 30, 1906," which first drew the attention of the general public to this form of legislation was based on the food laws of Europe and of some of our states. The various provisions, excepting those specifically referring to interstate commerce, have been tested in the courts of Ohio, and other states repeatedly. The Missouri laws will go into effect June 16, 1907. Within thirty days thereafter the governor will appoint the commissioner who will then appoint his deputy and inspectors. The deputy and inspectors should be intellgent, energetic men, thoroughly honest, not connected with or likely to be influenced by any food or drug manufacturing or dealing concern or organization.

The commissioner and his staff should at once acquaint themselves with all foods and drugs manufactured or sold in the State of Missouri and in due time, begin to collect samples. Eternal vigilance must be exercised by every member of the commissioner's staff. Samples of the same article may have to be bought repeatedly at irregular intervals.

The commissioner and his staff should at once acquaint themselves with should find out how much aid he can give or obtain from federal and local authorities.

The family doctor should, whenever an opportunity to do so presents itself (and that is daily), educate the public in matters of pure food and drugs and when the next legislature convenes in 1909, the medical profession of this state must be ready to support any movement to improve the law.

At a recent meeting of the United Pure Food Committee of Mo., the candidacy of the present Dairy Commissioner, Mr. Washburn, was endorsed. A suggestion made to the committee by the editor of the *Interstate Grocer* that a grocer be appointed Deputy Commissioner or inspector did not meet with approval. It was the opinion of the committee that the commissioner should not be interfered with in the selection of his assistants; that whatever knowledge a deputy or an inspector would be required to possess of foodstuffs handled by grocers or others, to intelligently fulfill the duties of his office as laid down in the Dairy and Food Drugs Act, could easily be acquired by any one intelligent enough to secure a position on the Dairy and Food Commissioner's staff; that the public might have just reason to suspect that a deputy or inspector who owes his appointment to certain commercial or mercantile interests, might not be unbiased in his judgment when matters pertaining to these interests were brought up.

In conclusion I wish to thank the county medical societies, affiliated with the State Medical Association, Dr. Frank J. Lutz and the other members of the State Board of Health, Dr. Overholzer of Harrisonville, Dr. Harrison of Fulton, and especially the introducers of our bills, Senator Frank DeVilbiss, M. D., and Representative G. H. Wilson, M. D., and the other medical members of the House of Representatives, for the valuable work they did to secure the passage of the "Dairy" and "Food and Drugs" Acts, Approved March 16, 1907.

Since becoming acquainted with the medical members of our legislature and the work done by them in the legislature, I have often thought how much better it would be for the people of Missouri, if more medical men were willing to sacrifice some of their time in the interest of our people, to serve them in the capacity of a state legislator.

H. W. Bartscher, M. D.,
Chairman, United Pure Food Committee of Missouri.

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E. J. GOODWIN, M. D., EDITOR.

PUBLICATION COMMITTEE:
WALTER B. DORSETT, Chairman.
M. B CLOPTON. M C. SHELTON.

EDITORIAL.

EXAMINING BOARD REGULATIONS.

After obtaining the opinion of the Attorney General concerning the procedure whereby the State Board of Health would determine what shall constitute a *reputable* medical college, the Board adopted the following minimum requirements which will be the standard by which medical schools will be judged.

MINIMUM STANDARD OF REPUTABLE MEDICAL COLLEGES.

In justice to the medical schools as well as their graduates who may desire a license to practice medicine in Missouri, the following standard is hereby promulgated which must be complied with in order to be considered a reputable medical college, which will admit their graduates to the examinations by the Missouri State Board of Health.

From and after the 14th day of June, 1907, a reputable medical college shall be one which demands for graduation:

First:—The statutory preliminary requirements.

Second:—A four years graduate course of instruction.

Third:—Properly equipped laboratories in the following branches as described by the Statutes: Anatomy, Chemistry, Physiology, Pathology and Bacteriology.

Fourth:—Adequate clinical, hospital and dispensary facilities.

The following are the

MINIMUM REQUIREMENTS

IN EQUIPMENT, LABORATORY WORK AND CLINICAL INSTRUCTION.

Instruction shall extend over 30 weeks.

All apparatus and equipment is calculated on the basis of sections of twenty-four students.

EQUIPMENT AND LABORATORY WORK.

(1). *ANATOMY.*

(A) GROSS ANATOMY.

(a) GENERAL.

(1) A dissecting room and a lecture room.

(2) Dissecting tables.
(3) Store room for preserving cadavers.
(4) Apparatus for embalming cadavers.
(5) Instruments for post mortem technique.
(6) Preserved anatomic preparations for demonstration and study.
(7) Mounted skeletons for demonstrations and lectures.
(8) Anatomical models.

(b) INDIVIDUAL.

(1) Unmounted skeletons for students' use.

(B) HISTOLOGY AND EMBRYOLOGY.

(a) GENERAL.

(1) Laboratory with tables.
(2) One large microtome.
(3) An oven for paraffin embedding.
(4) Apparatus for injecting blood vessels.
(5) Histological reagents, stains, etc.
(6) A series of embryological specimens and models.
(7) Jars, cases, etc., for preserving histological and embryological material, demonstration slides, etc.

(b) INDIVIDUAL.

(1) One compound microscope for each two students in the section, with two objectives.
(2) One set of histological reagents, stains, etc., for each two students in section.

LECTURE AND LABORATORY HOURS.

	HOURS LECTURE	HOURS LABORATORY
General Gross Anatomy	220	230
Histology	30	60
Embryology	30	60
	280	350

(II) *CHEMISTRY.*

(1) Lecture Hall.
(2) Students laboratory.
(3) Collection of
(a) Prime materials, organic and inorganic.
(b) Chemical elements, metals and metalloids.
(c) Chemical compounds.
(d) Illustrations showing stages of process of manufacture of the common remedies.
(e) Models and diagrams.
(4) Apparatus for weighing and measuring; spectroscope.

Lectures: 180 hours
Laboratory: 120 hours } for 2 years

(III) *PHYSIOLOGY.*

(a) GENERAL.

(1) A lecture room.
(2) Laboratory.
(3) Apparatus: Kymograph, mercury manometer, respiration apparatus, spirometer, CO_2 apparatus, tambours, sphygmograph.
(4) Animal house or room.

(b) INDIVIDUAL.

(1) Laboratory arrangements: One set for each two students. Each set of apparatus for muscle, nerve and circulation to include: two stands, six clamps, one muscle lever, one moist chamber, two time markers; two dry batteries, one induction coil, one platinum electrode, three simple electric keys, two heart levers, one warm chamber and one smoked paper kymograph.

Lecture hours 180. Laboratory hours 120.

(IV) *PATHOLOGY.*

(1) Laboratory and a lecture room.
(2) Microtomes for celloidin, paraffin and frozen sections.
(3) One microscope for every two students.
(4) Chemicals for staining and glassware for mounting sections for each individual student.
(5) Supply of pathological material.
Lectures during second and third years to be divided as follows:

	HOURS LECTURE	HOURS LABORATORY
Second Year	120	120
Third Year	30	30

Including Surgical Pathology.

(V) *BACTERIOLOGY.*

(1) Incubator.
(2) Steam and hot air sterilizers.
(3) Glassware and apparatus for the preparation of culture media, etc.
(4) Microscope having 2-3, 1-6, and 1-12 inch oil immersion lens. Abbe condenser and diaphragm, for every two students in section.
(5) Lectures 30 hours. Laboratory work, 60 hours in second year.

(1) Collection of such drugs as are commonly dispensed by pharmacists or physicians.
(2) 60 lectures; including prescription writing.

(VII) *THERAPEUTICS.*

(1) 30 lectures.

(VIII) *MEDICAL JURISPRUDENCE.*

(1) 20 lectures.

(IX) *HYGIENE.*

(1) 20 lectures.

CLINICAL WORK.

CLINICAL INSTRUCTION.

(1) Clinical instruction to classes in general medicine and surgery twice weekly during the third year. 60 hours in medicine and 60 hours in surgery.
(2) Bedside instruction in sections twice weekly during the fourth year in general medicine and surgery for 60 hours each. In the special departments: 30 hours in each department advertised.
(3) Obstetric clinical instruction to individuals or sections during the third and fourth years so that each student shall have attended five obstetrical cases before graduation.

The committee of the Board which was appointed for the purpose of inspecting medical schools and to report concerning their equipment, the courses of instruction and their clinical facilities, made a report at the Mexico meeting on the 18th day of July. The report of the committee was adopted and the deficiencies of the various medical colleges which have been pointed out by the committee, were brought to the attention of the schools by the Board and they were requested to remove these defects in order to be recognized as reputable. Sufficient time was allowed the schools in which to comply with the law or discontinue their courses.

By October the first it is the intention of the Board to give such publicity to the condition of the medical schools as will enable young

men wishing to begin the study of medicine to inform themselves of the status of the colleges.

The Board will furnish to those desiring to enter a medical school and who have not the proper documentary evidence of the preliminary requirements exacted by the law, the following form which is self explanatory.

AFFIDAVIT OF COUNTY SCHOOL COMMISSIONER.

STATE OF MISSOURI }
County of..... } ss

TO THE STATE BOARD OF HEALTH:

I....., of lawful age, being duly sworn, depose and say: I am the.....of..... located at....., in the State of Missouri. That at the request of ....., residing at.....who is an applicant for admission to examination before the State Board of Health for license to practice medicine and surgery, I made a special written examination of said applicant for the purpose of enabling him to make such application; that the dates and places of said examination and time consumed therein are as follows:

....
....
....

That the grade or proficiency actually shown and fairly and justly earned by said applicant upon said examination on the scale of 100 is, in each study as follows: (Grades must average 75 per cent.)

English Grammar	English History .....
Rhetoric	American History and Government...
American Literature	Chemistry .....
English Literature	Biology .....
Arithmetic	* French .....
Algebra	* German .....
Plane Geometry	* Latin .....
Solid Geometry and Trigonometry....	* Spanish .....
Ancient History	.....
Mediaeval and Modern History.....	.....

I further state that said examination was wholly conducted by myself in person and at the times and places above set forth; that said applicant did not, directly or indirectly, receive any improper aid or assistance during or before such examination.

.....
Signature.

Subscribed and sworn to before me, this the.....day of.....190..

My commission expires.....19..

.....
Notary Public.

Medical schools outside of Missouri must comply with the same standard.

*Select one of either in the bracket.

GIFT OF THE BARNES MEDICAL COLLEGE TO THE STATE UNIVERSITY.

The recent gift made by the Board of Trustees of the Barnes Medical College to the state is another one of the evidences of the progress of medical education in this state. The valuable college building and the adjacent Centenary Hospital were donated to the

state in order to enable the medical department of the State University to establish its two last years of teaching in St. Louis where students can enjoy proper clinical instruction. The trustees of the Barnes Medical College have made the greatest contribution to medical education which has ever been made in this state, not only by transferring their possessions, thereby diminishing the number of medical colleges (the Barnes Medical College will cease to exist after this scholastic year, 1907 and 1908), but it has also rescued the State University Medical Department from a very dangerous position, for the State University located in Columbia cannot furnish adequate clinical facilities.

Medical education is so expensive that the fees of the students cannot defray the cost of conducting a medical school. The demands on the part of the people for higher medical education, the increased standards set everywhere, require the strong arm and the financial support of the state or large endowments to successfully carry on medical education.

The state of Missouri has chosen to support higher medical education, as the people of this state expected it would do, and the owners of the Barnes Medical College have made the first contribution toward assisting in this work of the state.

No better opportunity was ever presented to establish a high grade medical school. The large clinical facilities which already exist or can be provided in St. Louis, with a learned and enthusiastic profession from which to draw teachers and with the loyal support of the medical profession, the success of the Medical Department of the State University in its last two years promises to be as great as that of its laboratory years.

We congratulate the Barnes Medical College, the State of Missouri and the medical profession upon this happy event.

IS THIS A NEW ONE?

It was not to be expected that humbugging and faking in medical advertising would be stopped in the short time that has elapsed since the profession was aroused from its indifference toward the methods used by the patent medicine and pseudo-scientific frauds. We did hope, however, that we should not be called upon to condemn one in our own ranks for attempting to introduce an article through channels other than those provided by the profession itself, namely, the Council on Pharmacy and Chemistry. It was, therefore, with something of a shock that we perused the following, which came to us through the mails, printed on an ordinary post-card:

New York, July 17, 1907.

My Dear Doctor:

I am just commencing to introduce to the medical profession (on strictly ethical lines) a positive cure for tuberculosis in any form.

This discovery is the result of fourteen years scientific study and experimentation and has been thoroughly tested by many prominent physicians.

You can treat your patients at home and cure them in from six to sixteen weeks according to the stage of the disease. As startling as this statement may seem to you, if you have a Tubercular patient now, we will be pleased to furnish you with the theory, literature and abundant testimonials and a $3.00 size sample to prove what we say, the only charge being fifteen (15) cents in stamps to cover postage.

Doctor, a trial will prevent your tubercular patients from saying your neighbor doctor is curing his patients in a few weeks right at home, while you are sending them at great expense in time and money to the remote resorts for consumptives.

Respectfully yours,

———————— ————M. D.
Member N. Y. State Med. Society.
American Medical Association.

If this is ethical we shall be under the necessity of altering our conception of the meaning of that word.

As it emanates from one who holds membership in the New York State Medical Society and in the American Medical Association we shall refrain from further comment, as we presume his action will be made the subject of investigation by the two bodies of which he says he is a member.

RALLS COUNTY SOCIETY FOR THE PREVENTION OF TUBERCULOSIS.

The Ralls County Society was organized Thursday afternoon, July 11th, at Spalding, Mo. This is the second local Anti-Tuberculosis Society organized in the State and is affiliated with the Missouri Association for the Relief and Control of Tuberculosis. There were present in addition to the physicians who are members of this Society, many ladies, editors, attorneys and business men. Addresses were made by Drs. T. J. Downing and W. T. Waters of New London. Drs. H. S. Harwood of Renssalaer and Dr. R. C. Strode, Prof. C. F. Holland of New London, Dr. Wm. Porter of St. Louis, Robert J. Newton of St. Louis, Secretary of the Missouri Association, and others. Much interest was manifested by all present. The meeting was held in the open air on the shore of the Sulphur Lake.

The officers are Col. Joseph Burnett, President, editor of the "New London Record", New London; Dr. W. T. Waters of New London, Secretary; Prof. C. P. Holland, of New London, Treasurer. The

Directors are, in addition to these three officers, Dr. T. J. Downing of New London, Mrs. John Brisco of New London, and Mrs. Elisa Alexander and Miss Millie Wilson of Spalding Springs, Mo.

Under the direction of the Missouri Association for the Relief and Control of Tuberculosis, Societies are now being formed in Kansas City, Jefferson City, Scotland County and other places. It is planned to thoroughly organize the State and Societies will be formed in every town of over 5,000 inhabitants and in every county.

The Missouri Association is working to secure a Traveling Tuberculosis Exhibit similar to those shown in the East. This Exhibit will consist of photographs, charts and models, showing graphically what consumption is, how it is spread, and methods of relief and prevention.

The movement for the Prevention of Tuberculosis is world wide! In America the National Association for the Study and Prevention of Tuberculosis is carrying on a strong educational campaign, and is organizing Societies in all the large cities and in every state.

The Jasper County Medical Society is the first in the state to make a contribution of 25 cents for each member ($12.00 in all) for the benefit of the Missouri Society for the Relief and Prevention of Tuberculosis.

Our attention has been directed to the fact that the name of Dr. Robert Barclay, of St. Louis, was omitted from the published list of members in attendance at the last annual meeting at Jefferson City. Dr. Barclay was present at the meeting and his name should have appeared in the list.

The St. Louis Medical Review announces that with the issue of July 6th it will cease to publish a weekly edition, but will continue in a new series as a monthly publication. The first issue of the monthly will appear August 1st.

The State Board of Health cited eleven physicians of Kansas City to appear before it on July 30th, to answer charges of unprofessional conduct, and give reasons why their licenses to practice should not be revoked.

The *Interstate Medical Journal* (St. Louis) announces the purchase of the *St. Louis Courier of Medicine*, one of the oldest medical journals in the West, and its consolidation with the *Interstate*.

The *St. Louis Courier of Medicine* was established in 1879 by an association of prominent St. Louis physicians and always commanded a large following throughout the West and South.

This is the fourth medical journal that has been purchased and absorbed by the *Interstate* during the past few years.

CORRESPONDENCE.

Editor, Journal Missouri State Medical Association:

Dear Sir:—In an editorial in the June issue of the Journal, entitled "The House of Delegates," pages 756 and 757, is stated:

"The Committee (Nominating Committee) also made a radical departure from the established customs of the Association and offered nominations for officers not within the province of the House of Delegates to elect. This action caused considerable discussion, consumed more time and was finally and very properly ruled out of order."

In behalf of the Nominating Committee, who acted conscientiously and in good faith, it is only justice to make the following exposition, and we send you this letter for publication.

It was not the intention of this Committee to foist upon the Association an undesirable procedure or depart from any previous custom, without some good reason for such action. Therefore any so-called radical departure was based upon a careful interpretation of the Constitution and By-Laws.

Section 2, Chapter V, in which is explicitly stated "The Committee shall report the result of its deliberations to the House of Delegates in the shape of a ticket containing the name of one member for each of the officers to be filled at that annual session.

In Section 2, Article VIII is stated "The Secretary and Treasurer shall be *elected* by the Council."

In Section 4, Article VIII is stated "The President shall be elected by the General Assembly."

Neither section definitely or even remotely fixes the nominating power.

Under these provisions this Committee reported the "result of its deliberations" and nominated a ticket "containing the name of one member for *each* of the offices to be filled."

R. D. Moore, Chairman,
C. W. Fassett, Secretary.

Editor, Journal Missouri State Medical Association:

Dear Doctor:—At the Atlantic City Session of the American Medical Association the following resolutions, regarding the work of the Council on Pharmacy and Chemistry, were presented by the Reference Committee on Reports of Officers and were unanimously adopted by the House of Delegates.

Whereas, The Council on Pharmacy and Chemistry, after examining many hundreds of preparations, has officially announced its approval of a large number of such preparations; and

Whereas, We believe that the editors of many medical journals in this country, both official organs of State Associations and privately owned journals, are desirous of co-operating in the work of freeing the medical profession from the nostrum control; therefore, be it

Resolved, That this Association most earnestly requests all medical journals to refuse to aid in promoting the sale of preparations which have not been approved by the Council, by refusing advertising space to such preparations; and be it further

Resolved, That we most earnestly request the moral and financial support of our members for those medical journals, whether privately owned or controlled by medical organizations, which disregard commercialism and stand firm for honest and right dealing, thus sustaining the Council in its greatest work for the medical profession.

In accordance with the instructions of the House of Delegates, I am sending you a copy of these resolutions in the hope that the American Medical Association and its Council on Pharmacy and Chemistry may have your support and co-operation in this most important work. I am also sending you a list of the preparations that have thus far been approved by the Council, as well as some articles reprinted from *The Journal* which will, I hope, be of interest to you.

Very truly yours,

GEORGE H. SIMMONS, General Secretary.

COUNTY SOCIETY NOTES

CASS COUNTY MEDICAL SOCIETY.

The Cass County Medical Society held its regular meeting in Harrisonville on July 11th.

The meeting was a good one in every sense of the word. Two new members were added to the list.

Dr. G. W. Farrow read a paper on "Electricity in Therapeutics," which is to be continued at our September meeting. Dr. W. M. Clemmons read his paper on "Exophthalmic Goiter." Dr. Wm. Frick of Kansas City read a paper on "Pathology and Treatment of Epithelioma."

Those present and entering into the discussions were: Drs. T. W. Adair, W. M. Clemmons, H. A. Brierly, R. H. Burney, R. D. Ramey, Wm. Frick, M. P. Overholser, G. W. Farrow, H. S. Crawford, J. S. Triplett and H. Jerard.

The next meeting will be held on September 12th.—W. F. Chaffin, M. D., Reporter.

CLINTON COUNTY MEDICAL SOCIETY.

The Clinton County Medical Society met in Plattsburg, July 2nd, in regular quarterly meeting with a good attendance of the members.

Dr. John Sturgis, of Perrin, gave a "Discussion of Aconite; its Pharmaceutic, Toxicological and Therapeutic Action," which was very complete and elicited a discussion from all present.

Dr. G. B. Rush of Lathrop presented a clinical case of carcinoma of the uterus, which was discussed by all.

The committee, Dr. R. W. Rea and P. M. Steckman, reported the resolutions regarding Life Insurance Examinations, which were accepted.

The board of censors reported favorably upon the application of Dr. H. E. Desmond, and he was voted a member of this society.—E. A. Colley, M. D., Reporter.

GASCONADE-OSAGE-MARIES COUNTY MEDICAL SOCIETY.

The Gasconade-Maries-Osage County Medical Society met in adjourned session at Meta, Mo., on the 27th of June, 1907. The following members were present: Drs. W. R. Ferrell, M. E. Spurgon, J. D. Seba, Jas. Jose, J. W. Nieweg, J. J. Radamacker, S. J. Terrell and J. E. Neely; Dr. Beynon, visiting.

Dr. S. J. Terrell presented a case which was discussed by Drs. Seba, Ferrell, Radamacker, Beynon, Jose, Spurgeon, Nieweg and Ter-

rell. Dr. J. J. Radamacker presented a case which was discussed by Drs. Seba, Beynon, Jose, Spurgon, Neely and Ferrell.

Dr. J. W. Nieweg read a paper entitled "Proprietary and Pharmaceutical Medicine." Discussion by Dr. Seba. Moved and carried to adjourn until 8 o'clock p. m.

Immediately after reconvening, the discussion of Dr. Nieweg's paper was taken up and the following took part: Drs. Jose, Spurgon, Neely, Beynon, Terrell and closed by Dr. Nieweg.

A letter from Dr. R. O. Cross was read by the secretary. It was moved and carried that the letter be laid over until the next meeting, and that the secretary be instructed to secure more information.

Each of the three constitutional amendments offered at the previous meeting was adopted.

Dr. J. D. Seba read a paper entitled "Head Injuries." Discussion by Drs. Jose, Spurgon, Beynon, Neely, Nieweg and closed by Dr. Seba.

Dr. Briegleb's paper, entitled "Medical Practice a Business Not an Eleemosynary Institution," was read by the secretary. Discussion by Drs. Seba, Neely, Jose, Spurgon, Nieweg and Ferrell.

It was moved and carried that a vote of thanks be extended the Meta physicians for their hospitality.

The next meeting will be held at Belle, Mo.—J. W. Nieweg, M. D., Secretary.

GREENE COUNTY MEDICAL SOCIETY.

MEETING OF JUNE 28TH.

The Committee on Public Health and Legislation reported having called upon the Prosecuting Attorney and that he had promised to look after the illegal practitioners of medicine in this county.

Dr. H. K. Cowen, recently of Pittsburg, Kansas, was elected to membership in this Society by transfer card.

Dr. J. L. Ormsbee read a paper entitled "Refilling of Prescriptions." He said the refilling of prescriptions by druggists without the authority of the physician, not only causes a loss to the physician but it may do much damage to the patient and react again on the reputation of the physician. The physician can control the use of his name, but he cannot control the use of the combination of drugs which he prescribes. However, as it is the name of the physician which makes the prescription valuable to the patient, the withholding of the name of the physician on refilled prescriptions would tend to lessen this practice.

He recommended the use of a certain prescription blank that has proved satisfactory to both doctors and druggists in some parts of the country. This blank is described as follows:

Physician's name, address, office hours, telephone number, etc., at the top of an ordinary sized blank; immediately below this is the fol-

lowing: "Note—The conditions under which this prescription are written will be found on the reverse side hereof." Immediately below this note the sign ℞ and "For....." At the bottom of the sheet and in the left hand corner is printed the druggist's card in small type.

On the reverse side of the sheet the conditions referred to in the "Note" are stated as follows: "This prescription is written for the party whose name appears thereon, for the present indications only, hence it is NOT TO BE RENEWED without my written consent, and NO COPY OF SAME IS TO BE GIVEN. The Pharmacist compounding it will kindly preserve the same on his prescription file." Then follow blank spaces for the date and the doctor's signature. In adition to all this the druggist places on the container a sticker reading as follows: "Your physician directs that this prescription IS NOT TO BE REFILLED without his consent."

In some cases the doctor does not care to restrict his prescription and in others he wants very much to do so. By omitting to sign on the back, he omits the restriction and makes it an ordinary prescription, but it must be signed on the face to be legal.

In addition to this paper, the subject for general discussion was "Diarrheal Diseases of Children," and the following members took part: Drs. Fulton, J. Kerr, Beattie, O. Smith, Cox, Patterson, Knabb, Peak, W. M. Smith, Woody and N. C. Williams.

On motion the Society adjourned for the summer vacation until the second Friday in September, 1907.—J. L. Ormsbee, M. D., Secretary.

JEFFERSON COUNTY MEDICAL SOCIETY.

The Jefferson County Medical Society met at Festus, July 3d.

The physicians of Festus had a very interesting clinic, which was followed by a discussion of a number of important medical questions.

After adjournment, the members were entertained by one of the Festus physicians and after partaking of the best of the land, we extended to our host a vote of thanks.

The next meeting will be held at DeSoto, the fourth Tuesday in October.—R. E. Donnell, M. D., Secretary.

RALLS COUNTY MEDICAL SOCIETY.

The Ralls County Medical Society met in regular session on July 11th at Spalding.

The scientific program consisted of a "Symposium on Tuberculosis." Five papers were read and very generally discussed.

Fourteen physicians were present. After adjournment, a Ralls County Society for the Relief and Control of Tuberculosis was organized.

Among the visitors present was Dr. William Porter of St. Louis. —T. J. Downing, M. D., Reporter.

RAY COUNTY MEDICAL SOCIETY.

The Ray County Medical Society met in regular session at Hardin, Wednesday, July 17th. An interesting and profitable program was rendered as follows: "A Systematized Course of Study for the County Society," Dr. C. B. Shotwell; "The Relation of the County Society to the Public," Dr. F. G. Higdon; "Management of Summer Diarrhea," Dr. L. D. Greene. Dr. Shotwell was unable to be present, but sent his paper which was read by Dr. Sevier. The papers were all ably written and were thoroughly discussed.

The next meeting will be held at Richmond on the third Wednesday in September, at which time papers on typhoid fever and malaria will be presented by Dr. T. B. Cook and Dr. M. Grimes, respectively.

The following officers were elected for the ensuing year: President, Dr. E. H. Musson; First Vice-President, Dr. L. D. Greene; Second Vice-President, Dr. Robert Sevier; Secretary, Dr. H. S. Major; Treasurer, Dr. M. Grimes.—H. S. Major, M. D., Secretary.

SALINE COUNTY MEDICAL SOCIETY.

The meeting was called to order at 11 a. m., July 9th.

The committee appointed to select a subject for discussion at next meeting announced the subject of "The Civic Relations of the Medical Profession—What are Our Duties as Citizens?" Drs. D. C. Gore, Owen and Harris were appointed to discuss the subject.

The name of Dr. H. H. Ringen, of Sweet Springs, was proposed for membership and referred to the committee on credentials and membership.

Adjourned until one o'clock.

At the afternoon meeting the subject of "Summer Diarrhea" received our attention. Dr. Richart, of Blackburn, read a paper upon the etiology, pathology and prophylaxis. Dr. Hall then discussed the clinical history and symptoms; Dr. Edmond discussed the treatment.

Dr. A. R. Edmond then read a fine paper eulogizing the country doctor, and the Society decided to have the paper submitted to the State Journal for publication.

The next meeting will be held on August 13th.—A. E. Gore, M. D., Secretary.

SHELBY COUNTY MEDICAL SOCIETY.

The Shelby County Medical Society met in Shelbina on June 25th.

Drs. Vaughn and Smith reported cases of pericarditis and an interesting discussion of pericarditis and endocarditis followed by Drs. Pollard, Singleton, Owen, White, Wood and Dallas.

Dr. Dallas gave an excellent talk on some of the needs of the profession and the advantages of a thorough organization.

On motion adjourned to meet on the first Tuesday in September. —A. M. Wood, M. D., Reporter.

BOOK REVIEWS

INTERNATIONAL CLINICS. Vol 2. Seventeenth Series. 1907. J. B. Lippincott Company, Philadelphia.

The International Clinics are too well known to require any further introduction. The present volume is full of interesting and instructive material gathered from America and Europe.

The following contributions are of unusual value:

Cole (John Hopkins) has an article on the vaccine treatment of infectious diseases in which he discusses Wright's opsonic theories in a thoroughly fair and critical manner. This is valuable, especially at present, as the theory is so alluring that many are liable to be led astray by it to such an extent that what is probably a valuable addition to our knowledge and armamentarium is apt to be unjustly damned.

H. S. Clogg (Charing Cross Hospital) discusses perforated duodenal ulcer. In two of his cases the disease was thought to be appendicitis. This error in diagnosis is most excusable as in reality all that the physician can diagnose is peritonitis probably due to perforation of a viscus, and the duodenum and appendix may lie exceedingly close together.

Appendicitis in Pregnancy.—Cuthbert Lockyer, (London) gives this advice: Ignore the pregnancy. If an abscess is present open it; drain; leave the uterus alone unless labor has begun. Under the latter circumstances conclude the labor and then treat the appendicitis. If pus is present during the puerperium open, drain, make counter drainage through Douglas' pouch. If the uterus becomes infected, remove it."

Bodine, (New York) discusses the use of local anesthesia in the cure of inguinal hernia. He has performed the operation 400 times successfully, using cocaine (1:500) in salt solution. He thinks it wise to administer ¼ gr. of morphine about half an hour before operating.

Cumston (Boston) contributes a useful article on "Surgical Syphilis," but confines his remarks practically to a consideration of hepatic syphiloma.

J. F. BINNIE.

RETINOSCOPY OR SHADOW TEST. By James Thorington, A. M., M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic, etc. Fifth Edition revised and enlarged. 54 illustrations. Philadelphia, P. Blakiston's Son & Co. 1906. $1.00 net.

This little volume is so well known to ophthalmologists that extended notice of this latest edition is unnecessary. The book has been reduced in size in spite of the fact that some new illustrations have been added.

THE PRACTITIONER'S LIBRARY OF GYNECOLOGY, OBSTETRICS AND PEDIATRICS, in Original Contributions, by Eminent American and English Authors. THE PRACTICE OF GYNECOLOGY—Edited by J. Wesley Bovee, A. M., M. D., Professor of Clinical Gynecology in the George Washington University, Washington, D. C. Large octavo, 836 pages, with 382 engravings and 60 full-page plates in colors and monochrome. THE PRACTICE OF OBSTETRICS—Edited by Reuben Peterson, A. B., M. D., Professor of Obstetrics and Diseases of Women in the University of Michigan, Department of Medicine and Surgery, Ann Arbor, Mich. Large octavo, 1087 pages, with 523 engravings and 30 full-page plates in colors and monochrome. THE PRACTICE OF PEDIATRICS—Edited by Walter Lester Carr, M. D., Consulting Physician to the French Hospital; Visiting Physician Infants' and Children's Hospital, New York. Large octavo, 1014 pages, with 199 engravings and 32 full-page plates in colors and monochrome. Price per single volume, Cloth, $6.00; Leather, $7.00; Half Morocco, $8.00. Price for any two volumes, Cloth, $11.00; Leather, $13.00; Half Morocco, $15.00. Price for the three volumes, Cloth, $15.00; Leather, $18.00; Half Morocco, $21.00. Lea Brothers & Co., Philadelphia and New York.

In preparing this new Series the object has been to cover the whole domain, composed of three cognate major specialties. Eminent American and English authors have united under the editorship of Drs. Bovee of Washington, Carr of New York and Peterson of Ann Arbor. By excluding those features of disease which are properly to be sought in works on General Medicine these volumes find space for a complete and comprehensive presentation of their respective subjects, with full practical details. Together with the most advanced knowledge of established value the authors have included their own observations, and the therapeutic measures which have resulted in the greatest success. This adds a personal element of obvious value. Abundant engravings and full page plates illuminate the text, the facilities at command of the editors having enabled them to secure photographs and drawings exhibiting any point desired. Though it is manifestly to the advantage of every physician to have the whole Library at hand, the volumes are sold separately for the convenience of those interested in the individual departments.

GENITO-URINARY DISEASES AND SYPHILIS. By Henry H. Morton, M. D., Clinical Professor of Genito-Urinary Diseases in the Long Island College Hospital. Illustrated with 158 Half-tone and Photo-engravings and 7 Full-page Colored Plates. Second Edition, Revised and Enlarged. Royal Octavo, 500 Pages. Bound in Extra Cloth. Price, $4.00, net. F. A. Davis Company, Publishers, Philadelphia, Pa.

In this edition much material has been added to the subjects considered. The additions comprise especially the development and perfection of surgical procedures for hypertrophy of the prostate and knowledge of the surgical diseases of the kidneys.